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PHYSICS.

MAN, while he remains in this world, is subjected to a number of wants, which he is under the necessity of supplying, in order to continue his existence. He must have food, to satisfy the calls of hunger, raiment, to protect him from the cold, and a cover to shelter him from the inclemency of the weather. Even in his rudest state, he must have arms, to defend him from his enemies, weapons to attack the animals, on which he preys, and at least, some instruments, to assist him in preparing his food, and his clothing. As he advances in civilization, his necessities increase in the same proportion: artificial wants are created: the calls of luxury must be obeyed. His food must be wafted from the uttermost corners of the earth: sea and land must be ransacked, to satisfy the cravings of his vitiated appetite. The silk-worm must be deprived of her covering, the cotton plant must be stript of its down, and the flax of its rind to supply him with raiment; the birds of the south must be robbed of their plumage, and the beasts of the north, of their furs, to adorn his person; the bowels of the earth must be laid open and the forests thinned of their trees, to prepare him a habitation. Nature herself, rendered subject to his laws, must be wrought into those forms which serve to gratify his fancy, or to satisfy his vanity.

Thus in every age, our existence, our comforts, our happiness depend upon the external objects which surround us. And in what situation soever we happen to be placed, we must, in some measure, make ourselves acquainted with these objects. In our infancy, we must acquire, by experience, the use of our hands and our feet; we must learn to distinguish substances by their colour and their shape; and to ascertain their distances and their properties, as far at least as concerns our immediate safety. Besides this general experience which no man can dispense with, there must be classes of persons in every civilized society, who devote themselves more particularly to the properties of certain bodies: One set of men cultivate the ground, and study the best method of raising plants: a second set dig metals from their ores, and learn to mould them into the necessary shape. Numerous sets of men are employed in preparing our houses, and a still greater number in manufacturing our clothing.

Thus among rude nations, the knowledge of individuals is often greater than among civilized nations; but the collective knowledge of a civilized society far exceeds that of a savage tribe. The more progress a society has made in civilization the greater is the number of properties of external bodies with which they are acquainted, but the more is that knowledge limited to particular individuals.

Now all the knowledge which mankind posses, or which they may acquire, concerning natural objects, is denominated *Physics*, or *Natural Philosophy*, in the most comprehensive sense of the words. Physics was at first confined altogether to particular facts, and constituted the rules necessary for understanding and practising the different trades. But men of leisure and curiosity, and actuated by more enlarged views, were gradually induced to collect those particular facts, to compare them together, and to draw general conclusions from them. The progress indeed which they made was slow, partly from the difficulty of the task, and partly from not knowing the best method of executing it. But they finally succeeded in arranging the greater number of detached facts under general heads. They did more: they examined nature themselves, and discovered new facts still more general. Physics gradually divided itself into different branches, and assumed that form which it has at present.

Natural objects present themselves to the view of the Observer in two different ways, either in a state of apparent rest and inactivity, or acting upon each other, and producing changes upon each other. He may confine his attention to either of these two states: in the first case, he will be occupied in arranging natural substances themselves, and in ascertaining their individual properties; his object in the second case, will be to classify and explain the different changes which bodies produce on each other. Hence Physics has been divided into two branches, namely, NATURAL HISTORY, and NATURAL SCIENCE. The first is an enumeration, arrangement, and description of all the bodies which exist in nature; the second is a classification and explanation of the different changes which these bodies produce on each other.

Let us take a general view of each of these branches.

NATURAL HISTORY.

The substances, which exist in nature, are so numerous, that it is impossible for any man to examine the whole of them, much less to make himself acquainted with their properties individually. All hopes therefore of acquiring a general knowledge of natural bodies would be at an end, did they not fortunately present themselves to our view in groups or classes, in every one of which the different individuals resemble each other so closely, that if we make ourselves acquainted with any one, we shall have a pretty precise knowledge of all the bodies which belong to the same class. Two objects have occupied the attention of natural historians: 1. To classify substances; 2. To examine their structure.

The *classification* is the first, and not the least difficult task. It is impossible to acquire any real knowledge of nature, or at least to communicate it to others, till we point out a method of distinguishing those substances, whose properties we undertake to investigate. All substances have been arranged under the three following heads. 1. Animals, 2. Plants, 3. Minerals. And the branches of natural history,

which exhibit the classification of the bodies belonging to each of these heads, are denominated, respectively, ZOOLOGY, BOTANY, MINERALOGY.

Each of these heads has, for the sake of conveniency, been sub-divided into a number of subordinate heads, called *classes*; the classes are divided into *orders*, the orders into *genera*, the genera into *species*, the species occasionally into *varieties* or *sub species*, each of which comprehends under it an indefinite number of individuals.

I. ZOOLOGY is that branch of natural history, which includes the classification of animals. It has been divided into six classes, 1. *Mammalia*, comprehending all animals that suckle their young, as man, quadrupeds, whales; 2. Birds; 3. Reptiles, or amphibious animals; 4. Fishes; 5. Insects; 6. Worms. To these we may add a seventh class, consisting of Zoophites, a class of bodies, intermediate between animals and vegetables.

1. The *mammalia* amount to about 420 species, of which 116 are carnivorous, the rest feed upon vegetables.

2. The *birds* are much more numerous, comprehending not fewer than 2,800 species, of these 190 are birds of prey, the rest feed on insects and vegetables, about 200 species of aquatic birds excepted, many of which live upon fish.

3. The amphibiæ amount to about 378 species: several of them are furnished with a bag of poison, which exsudes through their fangs into the wounds which they inflict.

4. The fishes are much more numerous, amounting to 888 species, all of them are animals of prey, for they feed on one another.

5. The insects abound in amazing swarms: most of them are short-lived, but they are so exceedingly prolific, that if they were not devoured by other animals, and by one another, they would destroy the vegetable kingdom. The known species of insects amount nearly to 10,100.

6. Worms are less numerous. They amount to 3,416 species; but among them a great number of shell-fish are included.

7. The Zoophites amount to 490 species. If we include them among animals, and reckon also 219 species of animalculæ, observed in vegetable infusion, the whole animal kingdom, as far as it is known and described, comprehends no fewer than 18,701 species. Were we to allow 50 millions of individuals to each species, which cannot be supposed excessive if we consider the unaccountable swarms of the insect tribes, the number of individuals upon this globe of ours, would amount to 935,050,000,000. Enormous as this number may appear, it is more than probable that some species of insects alone equal or even exceed it.

It is not to be supposed that we are acquainted with all the animals which inhabit this earth. Even at present, many regions still remain unexplored. The interior parts of Africa are altogether unknown, nor have the wilds of Asia and America been completely traversed.

Some species of animals, which formerly existed upon this earth, seem to have been altogether exterminated. We frequently find in rocks the remains of shell-fish, similar to none which exist at this day. This is the case also with two species of elephants, larger than any which are at present known. Skeletons of these animals are occasionally found in Siberia and North America. Naturalists have given to these last species of elephants the name of Mammoth.

II. BOTANY is that branch of natural history which comprehends all the inhabitants of the vegetable kingdom. This kingdom is still richer in inhabitants than the animal. Vegetables cover the whole surface of the earth, and no inconsiderable portion of the bottom of the sea. Animals are ultimately supported by them, hence it was necessary to make the number of the latter exceedingly great, in order to prevent them from being altogether destroyed.

Plants have been arranged under 24 classes, but, as the division is arbitrary, and gives us no precise view of the different vegetable tribes, it is unnecessary to be particular here. The species of plants, at present known, are scarce fewer than 50,000, and their number is increasing daily, as botanists make their way into those parts of the globe, that are but imperfectly known.

III. Mineralogy is that branch of Natural History, which includes the solid bodies, of which this globe of our's is composed. Minerals constitute the substratum upon which both vegetables and animals are supported. The classification of them is a more difficult task, than of the other two kingdoms of nature. They do not obviously divide themselves into genera and species. Hence, in order to class them, it was necessary to call in the assistance of other sciences; a circumstance, which retarded considerably the progress of the mineralogists.

Minerals have been divided into four classes:— 1. Stones, 2. Inflammables, 3. Salts, 4. Ores. The species belonging to the first class amount to about 180; those belonging to the second are about 12, the species of combustibles are about 10, and the ores at present known amount to nearly 133. Thus all the species of mineral bodies with which we are at present acquainted amount to 335. But it is far from probable that we are acquainted with all the minerals which compose the globe of the earth. We have been able only to scratch as it were the surface, while the interior parts are altogether beyond our reach. Even the surface is by no means completely explored. Mineralogists, accordingly, are every day discovering new species. No branch of Physics is at present advancing with greater rapidity than Mineralogy.

Besides minerals, there are two other collections of inanimate matter, which come under the examination of the naturalist; namely, the *atmosphere* which is a collection of three or four elastic fluids; and the *waters*, which are accumulated in the ocean, in lakes, and in rivers, &c.

It is commonly believed also, that two other substances of too subtile a nature to be confined in vessels, constitute a part of terrestrial bodies; these are *light* and *heat*. Many philosophers add to these a third body equally subtile, called the *electric fluid*.

Thus all the species of bodies at present known in

the three kingdoms of nature, amount to 69,043 species.

Such is a short outline of Natural History, which, as an accurate branch of Physics, is of modern date. Linnæus may be considered as the founder of Zoology and Botany. He formed the language and improved the classification so much, that his methods were very soon almost universally followed. Warner formed the language of Mineralogy, and introduced a classification and a mode of description which has been very generally followed.

The *examination* of the *structure* of bodies is in some measure necessary, in order to classify them. It must therefore exist as soon as the other branch of Natural History, and keep pace with it in improvement. A minute examination indeed of the structure of bodies is not necessary to enable us to classify them. But it is impossible to have an adequate idea of the properties of bodies, and far less of their functions, without being intimately acquainted with their structure. Hence an accurate examination of the structure must precede all discussions concerning the functions of bodies. The examination of the structure of animals and plants may be considered as the basis of *Physiology*, and that of minerals, as the basis of *Chemistry*.

That branch of Natural History which is occupied with the examination of the structure of animals and vegetables, is called *Anatomy*. The term is applied without limitation to the structure of the human body, that of the inferior animals, is called *comparative anatomy*, that of vegetables, *vegetable anatomy*.

Much progress has been made in the anatomy of animals. Almost all their organs have been examined or compared, and many curious inferences have been drawn. Anatomy is obviously the foundation of *surgery*, and of a considerable part of *medicine*. The anatomy of the human body has been almost brought to a state of perfection; comparative anatomy is still imperfect. That of plants, is attended with very considerable difficulties: it was begun by Malphighi and Green. Much has been done by Hedwig, and by several other philosophers still alive; but many important points remain to be determined. The anatomy of plants is the foundation of *vetegable surgery* and *medicine*, arts at present only in their infancy; but which promise hereafter to be of considerable utility.

Minerals are not organized like animals and vegetables; hence, the word structure, when applied to them, has a different meaning from that which it has when applied to living bodies. They are often composed of particles arranged in a peculiar way, according to certain invariable laws. The investigation of these forms has received the name of a *theory of crystallization*. It was begun by Linnæus, improved by Romé de Lisle, and brought almost to perfection by Hauy.—It is necessary to be acquainted with the substances of which minerals are composed. This gives birth to mineral analysis, a branch of Chemistry almost created by Klaproth.

NATURAL SCIENCE.

After having made ourselves acquainted with the classification and structure of natural bodies, we are qualified to examine their action on each other, and the changes which they produce by that action: this examination constitutes natural science, the second and most interesting branch of Physics.

Now it is obvious, that when a body acts upon another, it must *move*: for we cannot conceive action, without at the same time supposing motion. Natural science then is, in fact, an examination of the different motions to which bodies are subjected. In many cases we can perceive this motion; but it not unfrequently happens, that one body produces a change on another, without our being able to detect any sensible motion; yet even in these cases, we cannot avoid believing, that some motion has taken place, though too minute for our senses. The actions of bodies on each other may be divided into two classes: 1. Those actions which are accompanied by sensible motions. 2. Those actions which are not accompanied by sensible motions. The first of these classes has been denominated *Mechanical Philosophy*: the second has received the name of *Chemistry*.

The actions of *living bodies*, under which title animals and vegetables are included, belong partly to the first class, and partly to the second; but as these actions are peculiarly modified by taking place in living bodies, it has been thought proper to arrange them separately under the title of *Physiology*. Thus science has been divided into three branches: namely, 1. Mechanical Philosophy, 2. Chemistry. 3. Physiology.

1. MECHANICAL PHILOSOPHY.

Mechanical Philosophy, including all the changes which bodies produce on each other, accompanied by visible motions, obviously embraces a great variety of objects, and has accordingly been subdivided into different branches. Philosophers have observed, that there are certain general facts which apply equally to all these subdivisions: these facts have been collected together, and constitute the general doctrines of mechanical philosophy. The applications of these general doctrines to the different classes of motions, and the developement of the less general facts, constitute what may be called the *particular doctrines* of Mechanical Philosophy. These are applied in their turn to the explanation and improvement of the *mechanical arts*, which are founded on these doctrines. Mechanical philosophy then may be subdivided into three parts: 1. General Doctrines, 2. Particular Doctrines, 3. Mechanical Arts. These terms are not very proper; but we can think of none that are not liable to equally strong objections.

1. GENERAL DOCTRINES.

THE action of one body upon another is supposed to be produced by a certain unknown quality of the body called a *force*. Two or more forces may be opposed against each other. Now the action of a force may either produce *motion*, in which case a change takes place; or forces may be so balanced against each other, as to produce rest or equilibrium. This circumstance has induced philosophers to divide the general doctrines of mechanics into two heads—the first, *Dynamics*, or the laws of motion; the second, *Statics*, or the laws of equilibrium.

I. *Dynamics*.

Though the motions of bodies is the only circumstance that comes under our view, the *force* in no case

being an object of observation, philosophers have found it convenient to consider the *motions* and *moving forces* seperately.

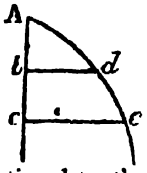
I. Motions.—1. Every body continues in a state of rest, or of uniform rectilineal motion, unless acted upon by some force.

2. In examining the motion of bodies, two things are to be determined: 1. The Velocity of the motion, 2. Its Direction.

3. The *velocity* of a body may remain constantly the same; or it may be continually increasing; or, finally, it may be continually diminishing. In the first case, the motion is called *uniform*, in the second *accelerated*, in the third *retarded*.

In *uniform* motions, the velocity is measured by the space passed over in a given time. Thus we may say, that a body moves at the rate of 2 feet per second, six feet per second, &c. Usually expressed thus, Motion $= \frac{2 \text{ feet}}{1''}$. In technical language, we say, that the velocity is directly as the space, and inversely as the time.

In accelerated and retarded motions, the velocity is continually changing; therefore we must have a particular expression to denote the velocity at every moment of time. Now if the moment be taken exceedingly small, the velocity during its continuance may be estimated by the space passed over. The velocity at every instant is proportional to the ordinates of a curve, in which the abscissæ denote the time; and the spaces included between the abscissæ, the curve, and the ordinates, the space passed over. Thus, if Ab = the time, Abd = space passed over by the body during the time; Ace = space passed over during the time Ac, then the velocities at b and c are to each other as bd to ce.



When the spaces described are proportional to the squares of the times, the force is said to be uniformly accelerated; because the increments of velocity are proportional to the times in which they were acquired.

4. The *direction* of a moving force may either be in a *straight line*, or in a *curve*.

Rectilineal motions may either be the result of one motion induced by one force, or of two or more motions produced by two or more forces acting in different directions.

If a body be subjected at the same time to the action of two forces, each of which would cause it to describe the side of a parallelogram uniformly in a given time; this body will describe the diagonal of that parallelogram uniformly in the same time. If it be subjected to three forces, each of which would cause it to describe the side of a parallelopiped in a given time; it will describe the diagonal of the parallelopiped in the same time.

5. Curvilinear motion is the result of the united action of two forces, one of which at least is an accelerated or retarded force: this last force acts in a transverse direction to the first, and is continually drawing the body from a straight line. It is therefore called a *deflecting force*.

When the direction and intensity of the deflecting force are known, it is easy to ascertain the path of the body and its velocity in any point of that path; the difficulty is to ascertain the direction of the deflecting force. This has been done by Newton, in the following most important case.

If the curve described be in one plain, and there be a point in that plain so situated, that a line joining it and the moving body describes areas proportional to the times in which the moving body passes over the arches bounding these areas, then the deflecting force is constantly directed towards that fixed point: this point is called the centre of deflection, and the deflecting force in that particular case is called a central force.

II. Moving forces.—7. Every change of motion is proportional to the force impressed, and is in the direction of that force.

In uniform motions, the force is proportional to the velocity produced. In accelerated motions, the forces are proportional to the increments of velocity which they produce, by acting uniformly during equal times; or they are proportional to the spaces through which they impel a body from rest in equal times by their uniform action. Finally, they are inversely proportional to the times in which a given change of velocity is produced by their uniform action.

The most important problem in Dynamics is that which has received the name of the *inverse problem of central forces*. It was first solved by Sir Isaac Newton, and may be considered as the foundation of all his discoveries. This problem is as follows:—Let a body be projected with a known velocity from a given point, and in a given direction, and let it be under the influence of a central force, whose direction, intensity and variation are known; it is required to determine the path of the body, and its motion in that path for any given time. For the solution, we refer to the 42d proposition of the first book of Newton's Principia, or to the article *Dynamics*, by Professor Robison, in the Supplement to the Encyclopædia Britannica.

II. *Statics.*

This branch of Physics considers the equilibrium produced by the balancing of opposite forces and motions. The objects which it embraces are so numerous, and so different, that it is not easily susceptible of accurate abridgement. We shall satisfy ourselves therefore with pointing out the principal heads.

It is a general fact, to which we know no exception, that action and reaction are equal.

Two equal and opposite forces balance each other: when the forces are unequal, the stronger prevails, and the body moves only with a velocity equal to that which would be produced by the excess of the greater force above the smaller.

If one extremity of a solid body be pressed, the pressure is propagated through the body, and is exerted at the other extremity. The propagation of pressure through solid bodies forms an important part of Statics.

The stability of heavy bodies depends upon the balancing of opposite forces, and therefore constitutes a part of Statics. It furnishes the data for constructing arches, vaults, domes, &c. and enables us to explain the different attitudes of animals.

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concentrated in a certain point, so situated, that if two plains, perpendicular to each other, were supposed to pass through it, the lines drawn to these plains perpendicularly from every particle of matter on one side would be precisely equal to the lines drawn from every particle of matter on the other side of the plain. This point is called the *centre of gravity*. When the centre of gravity in a body is as low as possible, the equilibrium is stable, when as high as possible, it is tottering: unless the centre of gravity be supported, there can be no such thing as equilibrium.

The strength of different materials, as wood, stone, metal, &c. used in machinery, building, &c. depends upon the proper balancing of certain forces; hence the general consideration of it comes under the province of Statics.

The last, and by no means the least important of the branches of Statics, is the equilibrium of fluids, and the pressures which they exert; this branch, we shall have occasion to examine afterwards.

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Such is a short view of Dynamics and Statics, which constitute the general doctrines of physical science. For the most important steps in these discussions, we are indebted to Sir Isaac Newton, who may, indeed, be considered as the creator of Dynamics and even of Statics. These general principles greatly facilitate the investigation of what may be called the Particular Doctrines of Physics; these particular doctrines may be arranged under the 9 following heads:—

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Let us take a cursory view of each of these sciences.

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The greater number of the stars always preserve their relative distances from each other; there are some, however, which may be traced moving along the surface of the hollow sphere, and which of course are sometimes near one group of stars, and sometimes near another. These moving stars are called planets. The sun has the same apparent motion, revolving round the earth, once every year. The moon performs the same revolution every month.

All the planets revolve round the sun. It has been ascertained, that the earth itself is a planet revolving round the sun like the rest.

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	Diameters, in Geogr. Miles.	Masses.	Density.
Sun	762400	1	1
Mercury	2782	$\frac{1}{2}$	*
Venus	6047	$\frac{1}{3}$	*
Earth	0878½	$\frac{1}{3}$	5 0393
Mars	3017	$\frac{1}{3}$	*
Piozzi			
Olbers			
Jupiter	76982	$\frac{1}{1}$	0 86014
Saturn	68238	$\frac{1}{1}$	0 46512
Herschell	34217	$\frac{1}{1}$	1 13707

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Mars	1 02733	Herschell	*

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Venus	224.700817	Jupiter	4332.602208
Earth	365.256384	Saturn	10759.077215
Mars	686.979579	Herschel	30089.000000
Piozzi			

Their mean distance from the sun, or the length of the semi-diameters of their orbits is as follows:

	Miles English.	Semi-diameter of the earth's orbit.
Mercury	36281700	0.387100
Venus	07795500	0.723332
Earth	05726000	1.000000
Mars	14281800	1.523693
Piozzi		
Olbers		
Jupiter	487172000	5 202762
Saturn	891162000	9.540724
Herschell	1813930424	19.183629

Suppose a line drawn from the sun to each of the planets, and to move round with them. The areas described by these lines are proportional to the lines of revolution. Therefore, the planets are detained in their orbits by forces always directed towards the sun.

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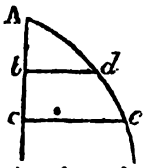

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Earth	6878½	$\frac{1}{329809}$	3.03933
Mars	3017	$\frac{1}{1546082}$	*
Piozzi			
Olbers			
Jupiter	76982	$\frac{1}{1067.09}$	0.86014
Saturn	68238	$\frac{1}{335940}$	0.46512
Herschell	34217	$\frac{1}{19304}$	1.13757

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Several of the planets have smaller bodies, called *satellites*, revolving round them. The earth has one of these bodies, called *the Moon*, Jupiter has four, Saturn six, and Herschell four. No satellites accompany the other planets. These secondary planets describe ellipses round their primary, and follow precisely the same laws. Hence they are retained in their orbits by one and the same force.

The deflection of the planets to the sun is accompanied by an equal deflection of the sun to the planets. The same law applies to the secondary, and primary planets. Hence the force which produce these deflections are mutual, equal, and opposite.

The planets are deflected towards each other, and these deflections are inversely proportional to the squares of their distances from each other; thus it appears, that all the bodies in the solar system bend towards each other, with forces inversely as the squares of their distances.

When a stone is dropt from the hand, its deflection towards the earth, in a given time, is to the deflection of the moon towards the earth in the same time, inversely, as the square of the distance of the stone from the centre of the earth, to the square of the distance of the moon from the centre of the earth; therefore, the force which occasions the fall of a stone to the earth is the same which causes the deflection of the moon, and of course with the force which retains the planets in their orbits.

Gravity therefore, or the fall of heavy bodies to the earth, is merely a particular case of the general tendency, by which all the bodies in the solar system are retained in their orbits. This general tendency is called *gravitation*.

The weight or gravitation of a terrestrial body is the united weight of all its parts, and is proportional to the quantity of matter which it contains. The same observation holds with respect to the gravitation of the planetary bodies. The observed gravitation of the bodies of the solar system is the combined effect of the gravitation of every particle of matter in each towards every other particle. Hence it has been inferred, that all matter gravitates to all matter, with a force inversely as the square of the distance.

Besides the planets, there is another set of bodies occasionally observed, called *comets*. At first, they are scarcely visible, but they increase in their size and in the swiftness of their motion for some time; then they gradually diminish again, and at last disappear. These bodies revolve round the sun in very eccentric ellipses. In one part of their orbit, they approach very near that luminary, and in another, are at a vast distance from it. The astronomy of comets is still imperfect: the elliptical orbit of only one comet is known with certainty; but the orbits of more than 60, have been calculated on the supposition, that they describe parabolas with the sun in the focus.

The fixed stars are at a much greater distance than the planets, and far beyond the bounds of the solar system. Their size therefore must be great; they are luminous, like our sun, probably equal it in bulk, and are the centre of systems similar to our solar system.

Certain changes in the appearances of the fixed stars have induced astronomers to conjecture, that the sun with all its attendant planets, revolves round some other centre, as the earth does round the sun; but the astronomy of the fixed stars is still imperfect. The subject is sublime, and has been lately cultivated with much assiduity, especially by Dr. Herschell; but the brevity; necessary in an introductory sketch, prevents us from entering upon his very ingenious speculations.

[*The remainder of this General View of Physics will occupy a future Number.*

*** *Our object in this Department, shall be to give the most speedy information in our power of all the discoveries which may be made in every branch of Physics. We shall notice the different publications of importance on physical subjects; examine their contents, and point out the improvements which they introduce. All the Physical Journals of eminence, both at home and abroad, shall be carefully perused, and every thing in them which we deem of importance shall be immediately noticed. Original papers too, on Physical Subjects shall be inserted, as often as our philosophical friends honour us with details of their labours. Such is the plan which we have projected, and in the conduct of the Work, neither industry nor expence shall be spared to enable us to execute it with exactness. Nor is the object in view of small importance: for a Work like ours, were it properly executed, would contribute in no small degree to the progress of the Sciences and the Manufactures in Britain.*

LITERATURE.

AS the general views in the articles Physics and Politics necessarily occupy so much space, we have been induced to begin not with that branch of Literature which most naturally presents itself first, but with that which could be discussed in the smallest compass. Polite Literature accordingly, or those works more immediately dependant upon the imagination will form the subject of this essay.

The great distinguishing character of the Poetry of the present day is a smooth and easy versification, in which point many competitors, who have hardly any other merit, are superior to those who stand most distinguished in the annals of Literature; and accustomed as we are to place Pope in the first rank of correct writers, incorrectness of construction, and inaccuracies of rhyme, are to be found in his most polished pieces, which would be now rejected by many of our writers in verse.

But, having said this, it is by no means our intention to place these writers above Pope even in versification. In Poetry as in Music a perpetual recurrence of unvaried smoothness is disagreeable to the ear; some relief is required to set off even beauty to advantage, and it is impossible to get up from the perusal of Dr. Darwin's Loves of the Plants, the most highly polished specimen of versification in any long Poem in our language, without feeling cloyed; while the Iliad of Pope exhibits a variety that is a continued source of delight.

The same kind of character that pervades the versi-

fication of our present Poets, extends in some degree to the matter; and if we have none of striking superiority, who stand alone, eminently conspicuous among their contemporaries, we have certainly more respectable writers in verse, now, than can be found in any former period. With what miserable compositions are the pages of our periodical journals of half a century ago disfigured; while we now perpetually see anonymous verses in our magazines, and even our newspapers, which make one wonder how such names as *Valden*, as *Walsh*, and as *Pattison*, could be enrolled among the British Poets. In short, without the invidious introduction of the names of living writers, we may fairly say that if we cannot now boast of Poets who will rank with Milton, Dryden, Pope, and Gray, we can of many that may rank above the second-rate Poets of any age.

Still, however, it may not be too fastidious to predict a tendency to corruption in our taste, and which obviously appears in an affected novelty of versification and sentiment, which seems daily to gain ground. Whenever any art has attained it's acmé of perfection it must gradually descend from it, and this descent will be accelerated in proportion to the real genius of subsequent writers. For while men of inferior genius will be content to imitate models before them, the man of original genius will grasp at novelty; he will deviate from the beaten path, and will rather gather weeds with his own hand than load himself with flowers which have been culled for him by others.

The Drama next presents itself to us, and in this a great revolution has taken place. As our Drama was not derived from the same source as that of the ancients, the same strict unities that were necessary to their Drama is not absolutely so to ours, and in consequence of this our earlier writers entirely neglect them; but there is also a sort of unity founded on reason of which they were also negligent. The superlative genius of Shakspeare has stamped a merit even on his errors: and when subsequent writers of far inferior talents adopted the strict rules of the ancient, or rather of the French theatre, though the pedantry of the times had persuaded the public that such plays alone ought to please them, they never could be really pleased by them, and when Garrick ventured to bring Shakspeare forward again, divested of some of his grosser inaccuracies, he was received with the warmest enthusiasm.

As it is natural to copy models that are universally admired, it became the custom, and is particularly so at the present day, to try to imitate Shakspeare; but it is easier to caricature than to imitate. The courtiers of Alexander could not display military talents like his, but they could hold their heads on one side like him. We have seen some writers who try to copy the manner of Shakspeare by the frequent introduction of *cheerly, cheerly,* and it seems generally thought that because some deviations from probability are excusable in a great genius, a total dereliction of all probability will atone for a total deficiency of all genius.

The faults however of the modern Drama are by no means entirely imputable to the want of merit in the dramatic writers; the extent of the theatres is such that the interest of the dialogue, and the affecting powers of the actor are in a great measure suspended. The versatile features and the penetrating eye of Garrick, would lose much of their effect on that stage, now so much enlarged, which he formerly trod; and theatrical decoration is so necessary to the success of the piece, that the Poet may in vain try to excite terror and pity by his writing, if the liberality of the manager does not co-operate with his efforts by the splendour of scenery and dress.

Of the inefficacy of dramatic interest, excited by the writer alone, to ensure success in the representation, we have had an instance in the exhibition of one of that Series of Plays, intended each to delineate a particular passion, which could not go through its nine nights, though deservedly admired by every person of taste in the perusal. Yet in justice to the liberality of the managers, it must be allowed that plays are now got up in general with a magnificence unknown to our ancestors, and the theatre cannot give decoration where the plan of the Drama does not call for it. The costume of the characters also is scrupulously attended to, in which the theatre was formerly disgracefully deficient. Many of us can remember Lady Macbeth in a large hoop, and Cato in a tye wig.

Of the modern comedy we can only say, that as it ceases to imitate general nature, and confines itself merely to the frivolous peculiarities of the day, though it pleases for the moment, it will soon become as little interesting as are now the foolish caricatures of the maccaronics which filled our print shops about twenty years ago.

Of one dramatic writer however we can boast, of superior talents, who unites the abilities and the powers both of poet and manager; but he is a kind of deserter from the theatre. Far be it from us to depreciate his present high and honourable pursuits; but surely posterity would have lamented, though they might not have blamed, the ambition, however laudable, that had torn Shakspeare from the theatre and placed him in the Senate.

There is another species of composition which falls into this class, though it wants versification, which is nearly an essential requisite in poetry; we mean Novels, and other works of imagination. Novels are perhaps of all writings the most widely diffused, and take the greatest hold of the human mind, at a time of life when it is most susceptible of impression, and though the Drama, possessing the advantage of placing the action before the eyes, and enforcing its pathos by the gestures and the accents of a Siddons, may seem most calculated to excite the strongest interest, we think on investigation this will not be found the case. We speak not here of the critic who goes to exercise his judgment, but of the young and susceptible, who go to be amused. In them the attention is greatly diverted from the play by the splendor of the theatre, and the dresses of the spectators, and especially their own; but they bring to the Novel an uninterrupted attention, and while they are reading their mind is riveted to the page. The language and sentiments of these compositions are much purer than they used to be, there is neither vulgarity in the one nor (with few exceptions) indecency in the other. We certainly

cannot, as a composition, compare any novel of the present day with the Tom Jones of Fielding; but no man of delicacy could read Tom Jones aloud before a company of ladies.

But alas, against some of our modern novels more serious charges may be brought than indelicacy of expression. Irreligious and immoral sentiments, may be clothed in the purest style, and every principle of domestic virtue, the foundations of the sacred duties of mother, daughter, and wife, may be secretly undermined by language that would not excite a blush on the cheek of the most bashful virgin. Such a source of corruption has not escaped the notice of those who have wished to corrupt; but yet, while some writers have been assiduous in diffusing poison, happily others of superior excellence have been equally assiduous in administering the antidote, and the writings of D'Arblay, of Ratcliff, and of West, have extended the shield of genius for the protection of virtue.

Miscellaneous essays on various subjects seem next to call our attention, as holding a middle station, between works of imagination, and works of criticism, and partaking in some measure of the qualities of both. The most popular of these are periodical papers like the Spectator, Rambler, &c. But the present time does not seem favourable to essays of this sort, and neither the *Mimic*, the *Lounger* nor the *Looker-on*, though possessing much merit, have been able to vie either in celebrity or duration with some of their predecessors. To this however, the *Observers* of Mr. Cumberland are an illustrious exception, which though not published at first, like the others, in separate numbers, are now to the reader exactly in the same predicament.

Of works professedly of criticism, we have no deficiency, and we must say, a more manly and liberal spirit marks the critic of the present day, than of any former period. A critic is no longer looked upon as a surly or invidious censor of genius, he is as ready to point out beauties as defects, and it is of great advantage to British Literature, that critical illustration is not now confined to the ancient writings. Men of the highest estimation for genius or learning, have employed their labours, on Shakspeare, Milton, Dryden, and Pope. Though on the first of these writers, perhaps more labour has been bestowed, not than his works merit, for that is impossible, but certainly more than is necessary for their elucidation, and to the present various editions we may apply what Ovid said of an over-dressed beauty; that the poet is the least part of himself.

Another species of critics, which is daily multiplying, has sprung up within half a century—viz. The Reviewers, of various denominations. Formerly an author of little notoriety had nothing to fear, from the Critic. But no insignificance now enables a writer to escape the fangs of one or other of these Aristarchi. Like squire Groom, in Love-A-la-Mode, they hunt from the elephant in the forest, to the flea in the blanket they are as swift in their pursuits, as they are indiscriminate in the choice of their quarry; and critical punishment no longer follows the literary delinquent *pede claudo*. We have heard there are means of deprecating their vengeance, but as we profess our intention to pursue the same labour, though on a more contracted scale, we must consider this to be a malicious charge, and not suppose others capable of acting as we should disdain to act ourselves.

We have thus endeavoured to give a rude sketch of the Character of the Polite Literature of the times, and in some future numbers, shall endeavour to fill up the outline of General Literature.

*** *Notice to Correspondents.—We have received some valuable Communications from different quarters, particularly one from a classical gentleman of Oxford, which will receive early attention. But our desire to complete, without any mixture of extraneous matter, the general views of our different subjects obliges us to defer those Communications, till that object be accomplished.*

MANNERS.

THAT the topics usually treated under this head, have been exhausted by the industry of the periodical writers, is an assertion which can be made by those only who live remote from society, or have lost the powers of observation. It may, on the contrary, be doubted whether MANNERS do not at present yield more important considerations than in former days, when the distinction of ranks being more closely preserved, men were seldom apt to commit absurdities by stepping out of the order in which nature and providence had placed them. It is true, indeed, that the term *revolution* may be applied with as strict propriety to MANNERS as to any other series of human events, since we find that their progress is circular; that what is old becomes again new, reverts to the position from which it was dismissed, and to a new generation presents original attractions; yet it may at the same time be observed, that every age gives so many various colourings to the same practices, as to present an endless fund to the curiosity or taste of the spectator, and very often to deserve the praise of invention.

Those great masters of common life, STEELE and ADDISON, set the example of a periodical review of MANNERS, which, with few intervals, was continued by able and observant successors, until the beginning of the present reign, when information of that description was left to the casual notice of newspapers, in which it rarely formed a prominent article, and was seldom conveyed in the spirit and humour of those who had bestowed an extensive attention on the subject.

During the progress of the celebrated works to which we allude, it appeared to superficial observers rather trifling to notice so frequently the anomalies of dress, to take the dimensions of a hoop, or criticise the colour of a ribbon, or the form of a cap. This was a labour which, it was imagined, must soon become obsolete; that temporary events could be entitled only to temporary notice, and that men who were ambitious of fame, ought to seek it in the correction of somewhat more important than the lesser improprieties of conduct. The experience of a century, however, has taught us to think more wisely of these "little things,"

which are "great to little men;" and to perceive the intimate connexion between Manners and Morals. We now know to what the refinement of the present age may be traced, and that wit and humour, apparently exercised upon petty events and trifling concerns, led to the reformation of abuses which were in vain attacked by more serious discussion, and never could be the subjects of legal prohibition. Neither the pulpit nor the bar could penetrate domestic privacy, or administer to the thousand little wants and caprices on which domestic happiness depends. But by the writings of the Essayists, a sense of propriety in the minute duties of life was gradually diffused among all classes of society: publick amusements, in which there was no mirth without grossness and absurdity, were gradually reformed, and the age was taught that becoming indignation which repells every attempt to insult publick decency, or overturn, by combined efforts and gigantic systems, the morals of a wise and thinking nation. In every thing we now observe the improvement of public sentiment, and the consciousness of publick shame; and although we frequently witness the recurrence of attempted enormities and extravagant schemes of amusement and dissipation, they have in a great measure lost the influence of example, are easily stripped of the protection of fashion, and when exhibited in their native coarseness or frivolity, soon fall into neglect, or are dismissed with contempt.

In order to preserve the advantages which our great Moralists have procured for us, it is necessary that no lapse of attention to public manners should take place, that they should be continually kept under the control of the pen, and that they who presume to act independent of considerations of publick utility should learn that they can derive no excuse or apology from reason or argument. It is with this view, however imperfectly the task may be executed, that we have determined to devote a department of THE LITERARY JOURNAL to the manners of the times as they exhibit themselves in publick or private.

Nor let it be thought that this is "going over the "old ground," or repeating hackuied sentiments. The inventors of excesses and extravagancies in manners have of late been more than usually prolific, and in some notorious instances it would be unfair to deny them the praise of originality, or to say that they have not exceeded their predecessors in experiments upon the patience and good sense of mankind. It will probably be conceded without hesitation, that a new fund of observation has been accumulated by the almost complete abolition of the distinctions of rank, the equalization of amusements between the high and low, and the general adoption of the same follies, and the same vices, by men who have, or who have not, wealth to protect them.

Let us take another obvious example. Man is said to be a gregarious animal: he loves and he forms societies: mutual wants lead to mutual complacency, and whatever is done greatly, and is done well, is done by combination. Thus it is in the division of labour, and the communication of knowledge. But in our days the principle is carried yet farther. Friendship, which was formerly expected only in a few, because it was expected to be sincere and lasting, is now subdivided among hundreds, and is a ceremony and a fashion. Friends are estimated by the multiplication table, and a meeting of them is only valuable, when it is too numerous for the dimensions of the house, when access to the doors becomes difficult, and when, if access be obtained, all comfort is rendered impossible, and the company depart from the pangs of heat and pressure, to recover their breath, and to boast of the ingenuity with which they made their escape from a place where all was danger and confusion.

It cannot be denied that this is new. It is not upon record that our ancestors, if they took the pains, were so eminently successful in contriving that society should be surrounded with mortifications and disappointments. They had no idea that it was genteel to check the pleasures of a visit by the terrors of a fractured limb, and nothing should be reckoned so unfashionable, so mean, and so vulgar, as a room in which it was possible to breathe, or a street through which it was safe to pass. Had this been handed down to us by the writers of Queen Anne's reign, we should have supposed they had employed their invention for want of existing materials. Let us hope that another generation will be equally incredulous, and that those who murder time, will hereafter do it with less barbarity.

If we look at publick amusements, which wil form a part of the present article, since their influence is very considerable on the Manners of the age, we shall probably be able to discover some innovations which, upon examination, will not appear to be improvements. Much as we are taught to prize the virtue of humility, we are sensible it may be carried to excess, and that contempt of fame which our dramatic writers have lately evinced, may perhaps appear a very unamiable weakness. Nor is the preference they give of present advantages to future prospects, very consistent with the sound principes of men, who affect to teach morality. While, therfore, the affairs of the drama will occasionally engage our attention, we can have no eye but to the amusement or instruction of the publick at large. We cannot hope that our endeavours will have much influene on men with whom we have so little in common. Among the infirmities of human nature, we perceive in ourselves some degree of vanity, enough at least to wish that these papers may be read with approbation; and we are more inclined to look to the advantages that may hereafter result from them to the publick, han to any immediate benefit they may confer upon ourselves.

The demand for publick amusements is becoming very day more urgent. Hired performers are no loger adequate in number to our wants, and a new spcies of entertainment is projected in which persos of rank are to exhibit the versatility of their talents and prove what that profession is in which they were born to excell. This cannot fail to produce importat effects on the state of Manners. Its progress therefore, will be watched, and will be worthy of our attetion. That men should "act their parts well in life" s no longer a metaphor. It has returned to the sarce fom whence it was taken. Those who could nefind

a niche in the Biographia Britannica, may yet be celebrated in the annals of the Stage. Those who would have remained unknown as affectionate wives or tender mothers, may be handed down to posterity as accomplished actresses and excellent dancers; while amidst a dearth of enlightened statesmen or eloquent senators, we may take consolation in the increase of admirable Hamlets and enterprizing Macbeths.

Of all kinds of knowledge, that in the highest demand, is termed "a knowledge of the world." In what this consists, can be disputed by those only who wish to attach more importance to it than it deserves. It is nothing more than a knowledge of fashionable manners, and an aptitude to practise them, without any scruple as to their tendency or consequences. It can be acquired, therefore, in the metropolis only; for the *world* resides no where else. Small detachments, indeed, may scour the country, in foraging parties, and temporary colonies may be established for a few of the summer weeks, on the coasts of Kent and Sussex, but the University for this science is in London. All that can be comprized under the head "knowledge of the world" is the knowledge of the manners and customs of London. It may be practised in the country, but it cannot be acquired there. It is in the metropolis only that the pupil learns his elements, pursues his studies, and obtains his degrees. Paris Vienna, St. Petersburgh, Berlin, &c. are all *worlds* created by the same power "out of nothing." A knowledge of them can never be removed into the country. Vallies and mountains, hills and dales, even market and manufacturing towns, the Bristols and Liverpools of Europe, are places of deplorable ignorance in this "whole duty of man." Persons residing in such situations may do a little in the way of theory, or catch a gleam of light at second-hand; they may lie in bed till noon; they may dine in the evening; they may crowd their rooms to suffocation; they may be denied by their servants; they may intrigue with their neighbours' wives; they may educate their children to a very proper contempt of economy, and they may send them half-naked into the streets to show their dress—but all this is, in general, clumsy imitation, and awkward straining, like that of the frog in the fable. Nay, they may perish in the attempt, but it is an attempt still. No perfection can be attained unless in the capital, where a few practical lessons will do more to "the young and ignorant," than a life of study, if unassisted by those records of publick manners to which we have alluded, and which it is the object of the present article to continue; that something may be learned, if nothing can be practised, and that those who are ambitious to know the world, may at least discover to what their ambition will lead. If by these means, they acquire little they will acquire it at a small expense, for it is perhaps unnecessary to add, that a complete course of this practical knowledge is attended with an expense which few have been able to defray, and with fatigues of body and mind which have sent many to their graves, before they had the happiness to finish their education. We are not without hope, likewise, that the instant view we may present, will be so satisfactory as to prevent some from hazarding a nearer approach, and to induce them to believe, with Dean Swift, that a knowledge of the manners of the great, is at first "vanity," but afterwards "vexation of spirit."

The approaching season, if our intelligence does not deceive us, promises to be uncommonly fertile in the topics which belong to this department. The return of peace seems to have opened a communication with the votaries of pleasure in other countries, and a mutual exchange of levities has already taken place. While it is a part of our plan to watch this intercourse, and observe its nature, and its influence on our native manners, it will be our duty, no less to expose it to the gentle chastisement of ridicule, than to discriminate with candour between those importations which have mere amusement for their object, and those which aim at higher purposes and more dangerous innovations. There is a fund of good and manly sense in this country to which we know we may appeal with safety, but there are also cases in which it may be necessary to inform the ignorant of latent danger, and awaken the neglectful from that indifference upon which the caterers of publick pleasure have too long presumed. R. S.

*** *In consequence of the publication of our Prospectus we have been favoured with several Communications which belong to the department of Manners. We have in particular to acknowledge the letters of Senex, of Censor, of "The Ant," and a learned Dissertation on a certain too familiar subject. But it may be necessary to apprize our Correspondents in general, that it may not always be convenient or suitable to our plan, to insert the whole of their Communications, and that in many cases, it may be promoting their laudable purposes more effectually, if what they suggest be incorporated in the general plan by the gentleman to whose care it is especially intrusted. The publication of a few numbers, however, of the Literary Journal will more fully exhibit its* constitution, *than any explanation here, and correspondents will more easily perceive the nature of that assistance which we shall be proud to receive from such writers as have already offered their services, and of whose letters we shall take an early opportunity to avail ourselves, after our introductory papers have developed the plan to be in general pursued.*

POLITICS.

A COMPLETE view of the political state of Europe would require an account of the geographical position of each state, of its form of government, of its military force, of its revenue, of the skill and dexterity introduced into the administration of the government, of the character and views of its leading administrators, of the condition of the subjects, poor or rich, ignorant or illuminated, industrious or idle, of their disposition towards the government, of the nature of their industry, whether agricultural, or commercial, whether improved or barbarous, an account of the States with which the interest of the several countries makes it natural for each to be connected, and of those with which its interest seems to lead it to be at variance, and an account of the ac-

tual connections of the different powers with one another. Every state in Europe would require a volume. It is obvious then, how faint an outline we shall be obliged to give in an introductory article of one of the divisions of our paper. With these general views, however, of the subjects belonging to each head, we have thought it necessary to set out; and even a slight sketch we hope may be useful in Politics.

The extreme difficulty of this subject is proved by the wide difference, with regard to it, of the sentiments of men the most eminent for their political knowledge and experience. The views are so very indistinct, and the lights furnished so very feeble, that hardly any one position is capable of being established with certainty; capable of being established in such a manner, as not to admit of contradictory views so very probable, as to sway the opinions of the most skilful judges. One set of men represent Europe as in a state of the utmost danger, as completely disorganized, as enfeebled, as including an enemy, against whom she is perfectly helpless, as liable to be swallowed up by that enemy, who only waits for the favourable opportunity. Another set of men are of opinion that though Europe is not placed in so tranquil, or perhaps so safe a situation as could be wished, yet still she is in a situation in which it is not very likely, nor very possible that evil should befall her; that she still possesses native strength to maintain and to repair her constitution; and though she has sustained a violent fever, she is fast recovering from it; and though one of her members has by that disease unnaturally outgrown the rest, yet by no means to such a degree as to exhaust the vital principles, or lead to the despair of the natural proportion being restored. Of those inhabitants of Europe who think her in danger, some consider France as the source; and there are not a few, and those too not interested persons, who represented it as England; because she exercises, according to them, a commercial tyranny over her neighbours, of the most severe, and humiliating sort. Wherever men of candour and wisdom so widely differ, truth is not easily seen. An additional hardship in this case is, that whatever opinion a writer adopts, he is sure to obtain the abuse of a multitude of all the sects who differ from him. Our object shall be to draw together the leading facts, on which the decision of all the questions respecting the state of Europe rests, and to draw from them such conclusions, as upon mature reflection, they appear to us to suggest.

One of the leading circumstances in the present condition of Europe is, that the smaller states are completely sunk, and nothing can be considered as of any importance, except the situation of the greater powers. Holland is nothing—Switzerland is nothing—Spain, Portugal, Italy are nothing—they are all dependant upon the movements of France. The princes of Germany go along either with Austria, or Prussia. Denmark, and Sweden must obey the dictates of Russia. The nations then to whom chiefly our attention deserves to be directed are Russia, Prussia, Austria, France, and England. It is the condition, intentions, and operations of these powers which determine the present, and future state of Europe.

The civilization of Russia is one of those grand events, which have so greatly altered the state of Europe during the course of the eighteenth century. At the beginning of that period it was sunk in barbarism, and obscurity; and considered as hardly deserving account in the arrangements of the other powers. A few princes of uncommon spirit, and by chance with passions happily directed, have called her forth with prodigious impetuosity; have introduced the arts of civilized Europe; have promoted industry; have encouraged the dissemination of knowledge; have new modelled the administration of the state; have created commerce; and forwarded the taste for the enjoyments and pursuits of the more cultivated countries. The improvement which has sprung from this has been prodigious. A spirit of activity and of industry is infused into the people. The nobles instead of lording it over their vassals in their castles, want to enjoy the luxuries, and the splendour of the capital. This they can only do by the riches obtained from their tenants. And these can only afford riches, by being allowed to become rich themselves, and obtaining that security which is the sole encouragement which industry needs. That security accordingly, and agriculture along with it, are improving every day. The riches, thus accumulated in the state, afford enough to the government to discipline and maintain as soldiers, a much larger proportion of its numerous subjects than formerly when it was poor. And the influence of Russia has mightily advanced. Before the commencement of the revolution in France, she was entitled to rank as a leading state in Europe. But it is during the disturbances occasioned by that revolution, that she has mounted up to one of the highest situations. Not only has civilization, which was in such rapid progress before, been advancing, and with accelerated pace, giving her every day more and more command of her immense physical strength; but while most of the other states of Europe were harassing and consuming one another by destructive wars, she kept aloof, and maintained all her resources untouched. While commerce was interrupted in other countries; it was here flourishing; and many commodities which the hostilities of the contending nations shut out from themselves found here reception, made the market easy, and prodigiously encouraged every species of industry. Whoever compares the degree of estimation in which the power of Russia was held by the states of Europe, at the beginning of the French revolution, and now, cannot forbear allowing that how rapid soever the advancement of Russia during any former period, during this it has greatly surpassed it. It is not difficult to account for the fact. But to us it appears to be one of the most remarkable on the page of history. That a nation in the course of twelve years, by cultivating the arts of peace, without foreign conquest, without having thrown off a foreign yoke, or altered the constitution of the state, should have nearly doubled her political importance, is a fact to which it will be difficult to find a parallel. To the other constituents of Russian greatness is to be added the territory gained by the partition of Poland; a territory which introduces her more into the heart of Europe, and is more accessible to commerce than almost any other part of her immense dominions.

Beside this is to be reckoned, the encrease and confirmation of her influence over Sweden, and Denmark, which, from being countries of some consequence, are now as much lost in the balance as Switzerland and Holland.

The rise and progress of Prussia is another of the extraordinary circumstances which have powerfully affected the condition of Europe. The other States had taken their form, and subsisted for ages, a regular balance had established itself among them, and they had made the greater part of the improvements of which they have now to boast, when as yet the kingdom of Prussia had no existence. From being feeble Electors of Brandenburgh, and Grand Masters of the Teutonic order, holding the small district of Prussia proper in fief of the crown of Poland, the sovereigns of Prussia have risen, in the course of the eighteenth century, to be a balance to the most powerful potentates of Europe, and to hold the destiny of kings and states in their hands. By improving with vigilance and skill every favourable opportunity, they have added to their dominions one province after another, till they now compose an extensive, and flourishing empire. The different parts however of this empire, long remained so disjoined from one another, lying in all quarters of the vast space of ancient Germany, that they were difficult to govern, and the efficient strength which could be drawn from them was comparatively small. Yet such was the skill and vigour of some of the Prussian princes, that they organized and maintained one of the most active and formidable military bodies in Europe, and claimed an important share in directing the general movements of that quarter of the globe. Some late proceedings have greatly contributed to place the power of this state on a firm foundation, and rear it to a majestic height. Many of the separated provinces have been united to the main body of the empire, by the acquisition of the intervening space. The partition of Poland added to it an extensive and important territory, which formed Silesia, Prussia, and Brandenburgh, into a large, and compacted state, admirably situated both for political influence, and commerce. Whether from bad motives or from good, whether from necessity or choice, Prussia kept out of the war which has retarded the improvements, and drained the resources of her neighbours. During all this period of waste and disorder, she has been encreasing her stores. And though she might have made greater advances by some very obvious improvements, many facts prove beyond a doubt, that her strength and resources have been greatly augmented during the last twelve years. Her influence in the German empire enables her to divide with Austria the princes of the empire, and to lead in her train, and count among her vassals, the greater part of them. The partizans of the House of Austria complain in the most bitter terms that the influence of Prussia at present has enabled her to direct the formation of the plan of indemnities most unjustly, and dangerously in her own favour.

The condition of the Austrian power is one of the grand points on which the question of the security, or insecurity of Europe turns. It was from Austria, at no very distant period, that the subjugation of all Europe was dreaded; and so immense at that time was her preponderance, that if such an event, in such a state of society as that of modern Europe, be possible to happen, then were the fears of it not unreasonable. Even after the dominions of the House of Austria were reduced to a moderate proportion with the other great powers of Europe, it was to check the ambition and power of that house, that for a long time most of the balancing treaties and alliances were formed. This state has been improving along with the rest of Europe. But she has not improved so fast; and the consequence is, that she has been obliged to give place in point of importance to some others. The government of this country is not more absolute than that of Russia, of Prussia, or perhaps of ancient France. But it has been much worse administered. Its very strength has been the main cause of this; as a great proprietor of land has less motive to improve it than a small. The government of Austria, being powerful enough both to maintain the most complete subjection among the people, and to cope with the mightiest states of Europe, naturally enough thought no further trouble necessary than to maintain the ancient establishment of things. The rigours too of the Roman Catholic religion, maintained in Vienna, in force only inferior to Spain and Portugal, have greatly obstructed the progress both of knowledge, and of industry in this country. A list of the books annually prohibited in it even now, is a curious and melancholy monument. Ignorance, accordingly, is more profound and gross among the people of all ranks in this than it is perhaps in any other civilized part of Europe, not even excepting Spain and Portugal. The nobles receive an education purely military, and are not so much as tinctured with literature. There is hardly an Austrian name to be found in the annals of modern literature. Some of the attempts at reformation of the late Emperor Joseph were salutary and noble. Such was the abolition in Bohemia, and Hungary, of the feudal system, which bound these provinces with iron chains, in sloth, ignorance, and poverty. His design, however to establish a uniform code of laws for all the provinces of his empire was abandoned after his death, as too troublesome to be put in execution. The rise of Russia and Prussia has greatly curbed the external influence of Austria. That latter power has deprived her of half her authority in the empire. The weakness of Turkey has left her more secure on the eastern side, but she has taken little or no advantage of it to extend her dominion.

She has just now come out of an exhausting and disastrous war, in which even her territory has been reduced. How much has her strength been impaired by that reduction? In our opinion the compensations which she has received have more than balanced her loss. It has been long known that the Netherlands, so completely cut off from her other dominions, were a burden and expence to her; and though it was an industrious and commercial country, it neither added to the revenue of the state, nor encouraged the industry of the distant provinces, with which it had no connection. The Italian States, which she has lost, were nearer, and less expensive, but very poor. The

Dutchy of Milan equal in value, to three fourths of the whole, afforded only 300,000l. of revenue; and the expence of the different establishments could amount to very little less. Her loss of influence over the small princes her neighbours, will be considered in another place. Our knowledge of what Venice once was, its vicinity to the very center of the empire, its power to encourage the industry and wealth of the whole state, by the introduction of commerce, entitle us, in our estimation, to say that this single acquisition is of more value to Austria, than all the territory which she has lost. To this too must be added, what she lately obtained in the partition of Poland, of which the city of Cracow alone contains 24,000 inhabitants. The real, the great loss which Austria has sustained by the late tedious, and destructive contest, is the ruin of her resources, and the interruption given to her industry. That by this she is grievously weakened is unquestionable, in what exact degree it is impossible, even for her own statesmen, as yet to determine. One thing however is certain, that she has not made greater exertions in that contest, than either France or Great Britain; and by consequence a greater drain of the sources of power cannot have been made from her; but being less fertile in these sources, she feels the drain more severely. It will depend upon the spirit, and judgment, with which these different States shall prosecute the work of repair, which of them shall soonest replace the means of industry, and strength, which they have spent in this contest.

If Austria has suffered so little by her territorial losses, let us see what France and Great Britain have gained by their territorial acquisitions. This is the grand question which divides the opinions of the most skilful statesmen, about which, of course, it becomes us to pronounce with diffidence. But we may be allowed to say, that we think there is not only a balance of evidence in favour of the opinion which we have adopted, but a balance of considerable magnitude.

We think there is good reason to conclude, that of all the territory which France has lately added to her dominions, the Netherlands is the only part of considerable, perhaps of any importance. This is a rich, and fertile country, speaking the same language with France, not only contiguous to her old territory, but serving to round, and give it a more defined boundary. France will make this spot immensely useful. The inhabitants of the two countries have always been closely connected together. This new territory possesses harbours and accommodations for trade, equal almost to any in the world. Industry is in greater perfection here than any where in France, and its example, and the commodities which it will furnish, will greatly contribute to inspire industry into the rest of the state. We count the territory on the left bank of the Rhine along with the Netherlands. It is adjoining, it is equally fertile, it can be governed with very little addition of expence, and if well governed, it will soon learn the industry of the Netherlands.

The reasons why we estimate lowly the advantage to France of having rendered dependant upon herself, and in some measure incorporated into her own body, Holland, Switzerland, and a great part of the north of Italy, we can just mention. We shall probably offer the development of them at some future period. Holland in point of territory is worth nothing, the expence of the dikes to preserve it being greater than the value of its produce. And experience has already proved that the commerce of Holland cannot subsist along with that of the Netherlands. It was necessary to destroy the commerce of the Netherlands, by shutting up the Scheld, and other restrictions, in order to preserve that of Holland. So that France cannot enjoy the commerce of both countires together. Besides, the commerce of Holland consisted either of the carrying trade, or of the spice trade from India. The spice trade is destroyed for ever by the transfer to England of the most valuable of all the Dutch possessions. The English can bring home their spiceries with their other merchandise at a trifling expence, the Dutch had to send out their ships for that very purpose. The carrying trade is at present engrossed by other nations, and these it will not be easy to supplant. Besides, so strong is the desire of every nation in Europe to become a maritime power, that they use every exertion to become their own carriers, and the carrying trade must daily diminish. "But Switzerland is an affair of formidable "magnitude." Truly we are not of that opinion. The pastoral inhabitants of that romantic country, enjoying independance and happiness in their vallies, were a delightful spectacle; and on their own soil, when united and virtuous, they were able to make a glorious stand for their liberties. But these mountains are certainly of little consequence as a province of a great empire. They can feed a few men at home; but they can furnish nothing to maintain them abroad. And if France can maintain more troops than her own territories will supply, she may draw them from almost any country which she chooses in Europe, without the burden of governing the country from which they come. If Switzerland be from its nature and situation incapable of commerce, and even of improvement in agriculture, if it can afford no revenue to France, and can only furnish a few troops without maintaining them, if it has for a century past been connected with France, and if it was unable for one month to maintain its independance against a moderate French army, we cannot see what should make its present connection with that country an object of extraordinary alarm. The case is somewhat different with the other additions made to the dependencies of France in Italy. They are more susceptible of agricultural improvement, and might in time yield some revenue as well as military force to the state. But of this they are incapable at present, because improvement has never made any progress in the country, and because they have lately been completely pillaged of any little wealth which they possessed, and must be condemned for years to the most wretched poverty. Another circumstance of great importance remains to be mentioned; that these states are enraged against France, will take every opportunity of throwing difficulties in the way of her government, and will more readily join with the enemies of France, as soon as any rational prospect of protection against her is afforded, than if they depended upon her in a more voluntary, and less degrading manner. There is

yet further a reflection applicable to France, on which those who are the most profoundly acquainted with human nature, and the laws of human affairs, lay the greatest stress; that by incumbering herself with these distant states, she only weakens the energies of her government. It is well known that the human faculties are but limited. It is well known too that the affairs of every state must be modelled and conducted by a small combination of human beings, who are entrusted with the administration. Whenever a greater load of business is laid upon the shoulders of these men than they are able to bear, the business must be ill managed. There is a certain extent then of men, and of affairs, which any government is capable of conducting in the best manner. And that extent is not very great with all the arrangements, and improvements which can be introduced into the management of public business. It is well known that even a large army never possesses the energy of a moderate one. The same must be the case with too large an empire. We shall at some future period give the reasons why we think that France, even without the Helvetic, and Italian states, is too large for the utmost energy of a government; and that by course it is rather the contrary of true that she adds to her strength by possessing them. The ex-European acquisitions of France are part of St. Domingo, and Louisania. The French, before the revolution, possessed all the fertile part of St. Domingo. And undoubtedly the Blacks are a more dangerous co-partner than the Spaniards. Here accordingly much has not been gained by the war. Much value is not assigned by any body to Louisiana. In our opinion it is an unfortunate acquisition to the French. It must be a fruitful source of jealousy between them and both Spain, and America. We look upon it as highly advantageous to America; because a little fear of external danger will powerfully tend to prevent division at home, and to maintain good principles of government.

By the war England has suffered that drain of her resources of which all war is the necessary cause; and as that war has been the most expensive which she ever waged, the drain of her resources has been proportionally great. She has by that war doubled her national debt, beside the vast supplies which she often raised in the course of the year. By an extraordinary concurrence however of circumstances fortunate to her, both in her internal state, and in the state of her neighbours, her industry received no interruption; and the produce of that industry was so great as to be sufficient to supply the demands of the war as fast as they came, without any apparent diminution of the national strength. Nay, it can hardly be doubted that the produce of the industry of the nation during the war was somewhat more than sufficient to supply the demands of the war, and afforded a surplus to be added to the stock of the nation, as a source of new industry and strength; that thus the nation even advanced during the war, though it would have advanced much more had there been no war. Not only would all which the war cost have been added to the national capital, to the fund for maintaining industry; but that industry itself would have had a more useful direction. We shall have full opportunity to prove hereafter that the effect of the war has been to turn a great part of the trade of Britain out of a channel more, into one less advantageous to the nation. The most extraordinary remaining effect of the war with regard to England is the immense augmentation of her naval superiority. By the destruction of the naval force of almost all her neighbours, and the additions which she has made to her own, she has become a match for the marine strength of all the nations, and exercises undisputed dominion over one half of the terraqueous globe. It is a prouder, more important superiority, than ever was exercised by one nation over the rest of the world. The extent, and glory of the Roman empire, even in the superb age of Augustus, is nothing compared with it. Perhaps the nations of Europe are in a condition sooner to rise to a respectable state of comparison, than those cotemporary with the Roman greatness. But this will depend upon events, which are yet in the womb of time; and can only be the effect of long improvement by them in all the constituents of national prosperity. As to the colonial power of England, whatever may be the absolute value which any judge of the subject may think proper to assign to it, it is not to be doubted that compared with its state before the war, it has received great improvement. The having expelled, to all intents and purposes, from the eastern seas, the only rival which we possessed in them; the having added to our territories that valuable island which is the great source of the sole part of the India trade, which we did not monopolize, and which adds so much security to our continental possessions; the having destroyed on the continent the only power which created us any disturbance, and established an undisputed dominion over the whole peninsula of India; these are acquisitions which will undoubtedly bear a comparison with all which France herself has added to her territories by the late contest. The addition of Trinidad to our West India possessions we do not value very highly. We had already more ground in that quarter, than consistently with the good of the British Isles, we could afford capital to cultivate; and it will infallibly be a source of jealousy and contention with Spain.

Such are the facts which in our opinion mark the present condition, of what may, with no great impropriety, be termed the physical power of the leading states of Europe. The use which is likely to be made of that power is another subject.

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[General View of Physics—Continued from our last.]

II. *Projectiles.*

As all the planetary bodies gravitate to the sun, it is obvious that if at their original formation they had been in a state of rest, their gravity would have caused them to approach the sun with an accelerated velocity, till they fell on its surface. As this has not happened they must have been projected at first in a direction transverse to that of gravity. Newton has demonstrated that bodies so projected always describe a conic section; and whether the orbit be a hyperbola, a parabola, or an ellipse, depends upon the velocity of the projection.

In all such projections gravity must be considered a force, varying inversely as the square of the distance. But when we consider the motions of bodies projected from the surface of the earth, the variation of their distance from the centre of the earth in all points of their tract is so small, that it may be overlooked and gravity considered as an uniformly accelerating force.

The science of Projectiles is occupied with the determination of the motions of bodies projected any how from the surface of the earth, and influenced by the earth's gravity. Now bodies may be projected perpendicularly to the horizon, or obliquely to it. Hence the science of projectiles is divided into two parts: 1. Vertical Projections, 2. Oblique Projections.

I. *Vertical Projections.*—If a body could be projected upwards with the velocity of 36700 feet in a second, it would never return; but when its velocity is less than this, it is gradually retarded and at last extinguished by the action of gravity. The body then returns to the earth with an accelerated motion. The greatest velocity with which we can project a body does not exceed 2000 feet per second.

The most interesting case in this branch of the science is the determination of the velocity of a body carried to some height and allowed to fall perpendicularly by its own weight. In that case its descent is occasioned solely by its gravity, and gives us the measure of the intensity of that force. Now a body falls by gravity precisely $16\frac{1}{12}$ feet in a second, and the velocity increases as the squares of the time. In

$\frac{1}{4}$	a body falls	1 foot
$\frac{1}{2}$	.....	4 feet
1	.....	16
2	.....	64
3	.....	144 &c.

The space described by a body falling from rest is equal to half the space it would have described in the same time with the velocity acquired by the fall. Hence the final velocity is equal to twice the space passed over divided by the time.

These spaces are ascertained by the motions of pendulums. Hence the properties of pendulums have been considered as belonging to this branch of projectiles.

II. *Oblique Projections.*—A body projected any how obliquely from the surface of the earth describes a parabola. This branch of Projectiles constitutes the foundation of gunnery, and has in consequence been cultivated with much zeal. But hitherto little advantage has been derived from the mathematical theory, because it overlooks the resistance of the air which alters exceedingly both the velocity and the direction of the bullet. Let us take a view therefore of the facts which have been experimentally ascertained.

The bullet is acted upon by the air which it is forced to displace by putting it in motion, and whatever motion is thus communicated to the air is lost to the bullet. Hence the velocity is more retarded when the bullet moves with a great velocity than when with a small, because in the first case it has to displace more air in a shorter time. The resistance of the air to the motion of a sphere is equal to about $\frac{3}{4}$ of the weight of a column of air whose base is a great circle of the sphere, and height, the space through which a heavy body must fall in vacuo to acquire the velocity with which the sphere is moving.

The velocity of a musket is at an average about 1600 feet per second and its range half a mile; whereas by theory its range ought to be 10 miles.

The rule just given holds in moderate velocities, but in velocities exceeding 1300 feet per second the resistance of the air is greatly increased. Hence the absurdity of giving bullets too great initial velocities. To give a bullet the velocity of 2000 feet per second requires half as much more powder as to give it the velocity of 1600 feet, yet after both have moved 400 yards the difference between the velocity of each is reduced to eight feet per second.

III. *Motions of impinging Bodies.*

The action of two bodies on each other when they strike against each other is perpendicular to the touching surfaces.

The centre of position is that point of a body which is the average distance of all its particles. In solid bodies it coincides with the centre of gravity.

When one body strikes another in the direction of the centre of position it makes the body move directly forward. But when the force applied is not in a line with the centre of position the body not only moves forwards but turns round its axis.

When two unelastic bodies strike one another they proceed afterwards with the velocity of their common centre of position before the blow. If both are moving contrary ways the motion of each is destroyed.

When a body yields upon pressure but returns again to its former figure with the same force that had been exerted against it the body is said to be *elastic*.

If an elastic body strike directly another body which is immoveable, it is reflected in the same direction, and with the same velocity with which it struck.

If an elastic body strike obliquely on an immoveable obstacle, it rebounds in such a manner as to make the angle of reflection equal to the angle of incidence.

If an elastic body strike directly on another body at rest, but at liberty to move, the velocity of the first body after percussion, is to its velocity before it, as the difference of the weights of the two bodies is to their sum; and the velocity of the second is to the velocity of the first, as double the weight of the first to the sum of the weights.

If two equal elastic bodies meet directly and with equal velocities, each rebounds with the same velocity, and in the same direction, as it struck; and if they meet together with unequal velocities, they rebound, after the shock, with interchanged velocities.

If two elastic bodies strike directly on each other with velocities that are reciprocally proportional to their weights, they rebound, after colision, with the same velocity with which they met.

IV. *Mechanics.*

The motions of many machines are to appearance very complicated. Yet when analyzed, as they have been by philosophers, they are found all to be reducible to the action of six powers, which have been called the mechanical powers.

The complete explanation of these powers involves discussions so abstruse and intricate, that it is impossible in a sketch of this kind to do more than name them. They are called the lever, the pulley, the wheel and axle, the inclined plane, the wedge, and the screw.

It has been remarked that these six powers may in fact be resolved into two, the lever, and the inclined plane. For the pulley, and the wheel and axle may be considered as compound levers; and the wedge and the screw are only modifications of the inclined plane.

V. *Motions of Fluids.*

A Fluid is a body whose parts yield to the smallest impressions and move freely among themselves. Little progress has hitherto been made in discovering the formal cause of fluidity. None of the theories that have been offered are susceptible of proof, and perhaps there is not a single one sufficient for explaining the whole of the phenomena.

Fluids obviously divide themselves into two classes: 1. Those which possess little elasticity, as water, oil, mercury; 2. Those which may be easily compressed but which resume their former bulk as soon as the pressure is removed. The first class are called *liquids*, the second *elastic fluids*.

It is obvious that the particles of fluids are at a certain distance from each other, and that they all repel one another; for they resist every compressing force. In elastic fluids the repulsion is easily overcome; but in liquids no assignable force is sufficient to produce any considerable impression.

The particles of liquids are attracted by each other, for they resist all attempts to separate them, and in most cases the resistance is proportional to the density of the liquid. Elastic fluids on the contrary do not seem to attract each other, for they separate from each other, without any assignable limit, when the compressing force is removed. The particles of liquids then both attract and repel, or they are situated in the limits of attracting and repelling forces; but the particles of elastic fluids always repel. Hence the phenomena of these two sets of bodies are very different.

That branch of Statics which treats of the equilibrium produced by the pressure of fluids is called *Hydrostatics*. The theory of the motions of liquids is entitled *Hydraulics*: the theory of the motions of elastic fluids is called *Pneumatics*.

I. *Hydrostatics*.—If a vessel be filled with a fluid and the surface of the fluid be pressed upon by a foreign body, whatever pressure this foreign body makes on the fluid, the same pressure does the fluid exert upon every point of the internal surface of the vessel.

2. If a fluid be enclosed in a vessel having two unequal orifices, and if a pressure be made upon each orifice proportional to the orifice, the two pressures will be in equilibrio.

3. The parts of a fluid are in equilibrio only when every particle is pressed equally in every direction. Hence the surface of fluids at rest is always horizontal.

3. The bottom of a vessel filled with water is pressed upon by a force equal to a column of water whose base is the bottom of the vessel, and height the perpendicular height of the water in the vessel, whatever the form of the vessel may be. And in general every surface immersed in water is pressed upon in a direction perpendicular to that surface by a force equal to the weight of a column of water whose base is the surface and its height the perpendicular depth of the water.

4. The pressure on the side of a vessel is equal to the weight of a column of water equal to half the perpendicular height of the vessel.

5. A cubic foot of water at 40° weighs 999.0914 avoirdupois ounces, therefore the pressure of water on every square foot is about 62½lbs. and this must be multiplied by the number of feet that the surface is under water, thus a square foot of surface at the depth of ten feet is pressed upon by a force of 625lbs.

6. When a body is immersed in water it loses a part of its weight equal to the weight of a quantity of water of the same bulk with the body. Hence by weighing a body first in the air and then in water we can easily ascertain its bulk. And when we know the bulk and the weight of bodies we can easily compare them together and ascertain what the same bulk of all bodies would weigh. This is called their specific gravity. The specific gravity of water is always reckoned 1.000; and other bodies are always compared with water. Thus the specific gravity of gold is 19.3; that is gold is 19.3 times as heavy as the same bulk of water.

II. *Hydraulics*.—The motions of liquid bodies, especially of water, which is often made the moving power in machinery, are extremely interesting; but the investigation is difficult; hence the principles of Hydraulics are by no means well established.

1. The quantity of water which issues from an orifice in a given time is proportional to the orifice and the velocity jointly.

2. The relative velocity of a liquid moving in a canal, which it exactly fills, is inversely as the section of the portion of the canal through which it is passing.

Hence the wider the portion of the canal the slower is the motion.

3. Water runs out at a hole in the bottom or side of a vessel with $\frac{1}{2}$ of the velocity which it would acquire by falling from the surface to the orifice.

4. The velocity with which water issues out of an orifice is in the subduplicate ratio of the pressures, and the pressures are in the subduplicate ratio of the depths. Hence the quantity of water issuing from an orifice is always proportional to the square root of the depth. Therefore to double the discharge you must increase the height four times.

5. The diameter of the issuing water contracts at a small distance from the orifice from which it has issued; and if a short tube be inserted into the orifice it increases the velocity of the discharge almost one third. To produce the greatest effect the tube must be about $2\frac{1}{2}$ diameters of the orifice.

6. When water flows in a horizontal canal it ought to move with the velocity with which it entered the canal diminished in the ratio of 820:1000. And the velocity of water in a sloping canal, as a river, ought to accelerate continually. Experience shows us that neither of these two rules holds. The reason is that the motion is obstructed by the adhesion of the water to the sides of the canal and by the undulations into which it is thrown.

7. The column of water which acts upon the fluid in the canal and sets it in motion may be divided into two parts:—1. That portion which communicates the motion that the water has; 2. That portion which is employed in removing obstructions. Now these obstructions increase as the square of the velocity of the water.

8. When the acceleration produced by the slope of a canal is just equal to the obstructions, the water continues to flow with undiminished velocity.

The motions of liquids are chiefly of consequence as they act upon other bodies and either put them in motion or tend to throw them down.

9. Now the impulse given by a fluid, provided the stroke be perpendicular, is proportional to the square of the velocity and to the density of the fluid.

10. But when the stroke is not in a perpendicular direction, the impulse of each particle is diminished in the proportion of radius to the sine of the inclination, and the impulse of the whole fluid is diminished in the proportion of radius to the sine square of the inclination. Hence in building piers and in constructing ships the slope is a point of very considerable importance.

11. It ought to be observed, however, that when the inclination is great, the impulse, as ascertained by experience, is much greater than that assigned by the theory.

12. Water is often employed to drive mill-wheels. These wheels are of two kinds *overshot* and *undershot*. In overshot wheels the water falls from a height upon the wheel, fills the buckets with which the rim is covered, its weight turns the wheel, and when the buckets descend to the under side the water is emptied out. Thus the wheel is turned by the weight of the water.

When the fall is considerable and the wheel well constructed, the power is to the work performed as 3 to 2.

Overshot wheels should move slowly. According to Smeaton the velocity of the rim should never exceed three feet per second.

13. Undershot wheels are moved by the impulse of the water. In them the momentum of impulse is as the square of the relative velocity, and it is a maximum when the rim of the wheel moves with $\frac{1}{3}$ of the velocity of the stream. In that case the power is to the work performed as 27 to 4. Hence we see that the performance of an undershot wheel is vastly inferior to that of an overshot wheel.

III. *Pneumatics.*—1. Elastic fluids may be forced into a smaller bulk by pressure, and when this pressure is removed they expand without any assignable limit. Now the bulk of a given portion of any such fluid is always inversely as the compressing force. If it fills a certain space under a given pressure, twice the pressure will reduce it to half the bulk; thrice the pressure to a third of the bulk, and so on.

2. Hence the distance between the particles of elastic fluids diminishes inversely as the cube roots of the pressure. To force the particles into $\frac{1}{2}$ the distance 8 times the pressure is necessary, which reduces the fluid to $\frac{1}{8}$ of its former bulk.

3. Hence the particles of elastic fluids repel with forces inversely as the distance of their centres.

4. Mr. Dalton has rendered it extremely probable that this law holds only with respect to elastic fluids of the same kind and that the particles of one elastic fluid do not sensibly repel those of another.

5. Only the contiguous particles of these fluids seem to repel.

6. Elastic fluids are heavy like other bodies and of course gravitate towards the earth. But their weight is much less than that of other bodies. Hence it is obvious that they contain much less matter in a given bulk and more vacuity. Air the best known of all these fluids is about 830 times lighter than water, and hydrogen, gas another of them, is twelve times lighter than air.

7. For any thing we know to the contrary the indefinite separation of the particles of gases from each other is only prevented by their gravitation.

8. Suppose a column of elastic fluid is confined in a proper vessel, whose base is the surface of the earth and extending to an indefinite height, the density of every thin slice of that column will be proportional to the weight of fluid above it. For it is kept in its present space by the pressure of that weight.

9. Hence the atmosphere, which is a vast collection of elastic fluid surrounding the earth, is densest at the surface of the earth, and its density diminishes gradually as we ascend above that surface.

10. If we suppose the atmosphere composed of an infinite number of extremely thin strata their density will form a series of numbers diminishing in a geometrical progression. The heights of the strata on the other hand increase in a constant arithmetical progression. Hence the height of any portion of the atmosphere is the logarithm of its density. On this law is founded the method of measuring heights by

the barometer. This instrument gives us the density of the air, the logarithm of which is the height.

11. The mean weight of the atmosphere at the sea shore is from a column of mercury 30 inches in height: therefore every square inch of the earth's surface sustains a pressure from the air = about 14½lbs.

12. If the density of the atmosphere were uniform its height would be 5½ miles. But as its density is continually diminishing its height must be much greater. The particles of air at the upper surface of the atmosphere will recede from each other till the repulsion between them is just balanced by the attraction of the earth, and this alone limits the height of the atmosphere.

13. The motions of elastic fluids when flowing through each other in currents have not been ascertained in a satisfactory manner.

14. Air is computed to rush into a vacuum at the rate of 1332 feet per second. Mr. Bankes found it by experiment only 845.2 feet per second.

15. When air is made to issue out of an orifice by the force of a column of water, the velocities are nearly as the square roots of the perpendicular height of the water.

16. When a current of air impinges against a perpendicular plain its force is equal to about ½ thirds of the weight of a column of air whose base is the body, and length, the space through which a body must fall to acquire the velocity of the current of air.

VI. *Acoustics.*

Acoustics or the theory of sounds must be considered as an appendix to the general principles of the motions of elastic bodies whether solid or fluid. For it has been found to depend upon the vibrations into which these bodies are thrown.

1. When a body is struck so as to emit a sound, its parts are made to vibrate backwards and forwards. These vibrations communicate an undulatory motion to the air. The waves are spread every way, and coming to our ears give us the sensation of sound.

2. The mean motion of sound through air is 1142 feet per second.

3. When the undulations meet any obstacle they are reflected from it and the sound appears to proceed from that obstacle. Hence the formation of echos.

4. The undulations may be collected and even increased. Hence the speaking trumpet, &c.

5. When bodies struck vibrate in equal times they produce the same sound, differing only in intensity. Such vibrations are called musical tones.

6. The vibrations of an extended chord are all performed in equal times.

7. The times of the vibration of chords are directly as their thickness, directly as their length, and inversely as the square roots of their tension.

8. When chords vibrate quickly the tone is termed acute, when slowly it is termed *grave* or *flat*.

9. When the vibrations of two chords coincide with each other they constitute harmony or concord, and the more frequently they coincide, the more perfect the concord. Thus vibrations in the proper times of 1:1, 2:1, 3:2 constitute concord.

Several curious additions have lately been made to our knowledge of sounds, but they cannot well be noticed in this short outline.

VII. *Optics.*

Some philosophers suppose light to be occasioned by the undulations of a fluid, and that its phænomena coincide with those of sound: but the greates number are of opinion that the sensation of vision is occasioned by a substance called *light*, moving in straight lines from luminous bodies.

1. Light moves at the rate of nearly 200,000 miles per second.

2. Its particles are so extremely minute as to have no perceptible momentum. Hence though they possessed gravity they could make no perceptible addition to the weight of bodies.

3. When a ray of light passes from one medium to another obliquely, it changes its direction, towards the perpendicular if the new medium be denser, but from the perpendicular if it be rarer. Light is then said to be *refracted*. The sine of the angle of incidence in the same medium bears a given ratio to the sine of the angle of refraction.

4. When a ray of light approaches a smooth surface obliquely it is driven back again. It is then said to be *reflected*. The angles of incidence and reflection are equal. Light is only reflected at surfaces.

5. A ray of light passing within a small distance of a body parallel to which it is moving is bent towards it. It is then said to be *inflected*: at somewhat a greater distance it is bent from it. It is then said to be *deflected*.

6. These changes in the direction of light have been explained by the attractions and repulsions excited between light and other bodies.

7. When a ray of light is made to pass through a prism, it is decomposed into seven rays, viz. red, orange, yellow, green, blue, indigo, violet.

8. These differ in refrangibility. The red is least refrangible, the violet most, the rest in the order in which they have been named.

9. They differ also in the same manner in reflexibility, inflexibility and deflexibility.

10. Some philosophers have endeavoured to show that there are only 3 rays, the red, yellow, and blue, but their proofs are not decisive.

11. The colours of bodies depend upon their property of reflecting light. White bodies reflect all the rays, black bodies absorb them all. Red bodies reflect the red rays and absorb the rest and so on.

12. The length of the spectrum at a given distance from the prism is proportional to the power with which the prism disperses the rays. This power differs in different bodies and is not proportional to the refractive power of the body. Thus flint glass disperses light much more than crown glass.

Optics has been divided into two branches: 1. *Deoptrics* or the theory of the different instruments for refracting light. 2. *Catoptrics* or the theory of the instruments for reflecting light.

VIII. *Electricity.*

When certain bodies, as glass, amber, sealing wax are rubbed with dry flannel they acquire the property of alternately attracting and repelling light bodies

such as feathers, cork, &c. This friction may be so conducted by means of electrical machines as to charge glass plates, or jars coated with tin foil, so that when the inside and outside coating are brought into contact a violent noise and a spark of light appears; animals may be thrown into convulsions and killed by it, as by thunder. These and similar phænomena are classed under the science of *Electricity*.

It is at present believed that these phenomena are produced by the agency of a peculiar fluid which has received the name of the *electric fluid*, and which is supposed to exist in all bodies.

1. The particles repel each other with a force decreasing inversely as the square of the distance.

2. They attract the particles of common matter with a force decreasing inversely as the square of the distance.

3. This fluid is dispersed through the pores of other bodies and moves through them with various degrees of facility. Through some bodies it moves with great difficulty or cannot move at all. Through others it moves without any visible obstruction. The first class of bodies are called *non conductors*, or electrics, the second *conductors*.

4. Nonconductors are glass, resins, silk, hair, baked wood, air, &c. Conductors are metals, charcoal, liquids.

5. The phænomena of electricity may be divided into two kinds: 1. Those that are occasioned by its attractions and repulsions. 2. Those that are occasioned by its passage from one body to another.

I. *Attractions and Repulsions of Electrified Bodies.*—

6. When substances contain their natural quantity of electricity they are said to be *saturated* with the fluid. In that case they neither attract nor repel apparently.

7. When bodies contain redundant electricity they are said to be *positively* electrified or *plus*; when they contain less than their natural quantity they are said to be *negatively* electrified or *minus*.

8. Electrics are brought into a positive or negative state by friction. Glass by friction is rendered positively electric; but sealing wax and other resins become negatively electric.

9. When a body contains redundant fluid, the surplus is repelled till it is brought to its natural state. When it is deficient, on the contrary, it attracts fluid from the surrounding bodies. But this influx or efflux is prevented if the body be a nonconductor or if it be surrounded by nonconductors. In this last case the body is said to be insulated and the electricity possesses considerable permanence.

10. Suppose two bodies A and B in their natural state, A composed of the matter M and fluid F, and B composed of the matter m and fluid f. M attracts f with a force $= x$. F repels f with a force $= x$, and F attracts m with a force $= x$. We have therefore the 2 attractions $+ Mfx + Fmx$ and the repulsion $- Ffx$. It is obvious that $Mfx = Ffx$, therefore they destroy each other and the remaining attraction Fmx would cause the bodies to approach each other. They do not approach: of course the attraction must be balanced by some other repulsion. Therefore M must repel m with a force $= x$. We have then the repulsion $- Mmx = Fmx$.

11. Suppose now the redundant fluid F′ and f′ to be added to each, they will repel with a force $= F'f'x$. If a portion of fluid be abstracted, or, which is the same thing, if they contain the redundant matter M′m′, they will repel with the force $= M'm'x$. If A contain redundant fluid F′ and B redundant matter m′ they will attract with a force $= F'm'x$. If either body be in its natural state they neither attract nor repel.

Hence we see that when two bodies have the same kind of electricity whether positive or negative, they repel; when their electric state is different, they attract.

12. When a body B in its natural state is brought near a body A overcharged, the state of the fluid B is altered, being repelled from the side next A, and heaped up on the side farthest off. Hence the side of B next A is negatively electrified and the side furthest off potively; A of course attracts B. This new state is produced in B even though an electric intervene. Hence nothing is communicated from A to B.

13. When an insulated body B is brought near an electrified body A, a spark is observed between them, B is electrified permanently, and the electricity of A is diminished. In this case a portion of fluid passes instantaneously from A to B and the violence of the phænomena depends upon the quantity that thus passes.

14. After a body has thus communicated electricity to another it constantly repels it. Because now both bodies are brought into the same state.

15. The phænomena of thunder are occasioned by the transference of electricity from one stratum of air to another.

16. When two conductors in their natural state are brought into contact, one of them becomes positive the other negative, and this state is permanent.

Such is an outline of the theory of electricity as it is at present received. But the new discoveries in galvanism have opened a new field of enquiry which may perhaps modify our opinions somewhat. They have served as a link to connect chemistry and electricity together, and promise fair to enlarge our notions in both. As these phænomena are scarcely susceptible of abridgement, we shall reserve our observations on them for a future number, when we shall make it our business to collect and arrange them, and to bring them as far as possible under the banners of a theory.

IX. *Magnetism.*

If an oblong piece of iron be so placed that it shall be at liberty to move in every direction (by fixing it in a cork and making it swim in water, for instance) it will gradually change its position and finally settle in a direction, making an angle of about 25° with the meridian. This position which all iron affects is called the *magnetic position*.

2. When an oblong sphere of iron is brought near another piece of iron situated in the magnetic direction and at liberty to move, it gradually attracts it, brings it into contact, and draws it slowly along.

Thus all iron has a tendency to assume a peculiar direction, and when in that position it is attracted by iron.

3. These tendencies are extremely feeble in com-

mon iron, but in certain ores of iron, found in the earth and called loadstones, they are much stronger; and so are they in bars of steel prepared in a peculiar way and called *magnets*.

4. A magnet suspended so as to turn freely, whatever the original position may be, always arranges itself in the magnetic direction, and one particular end always points towards the north. This end is called the *north pole* of the magnet; the other end is called the *south pole*.

5. Either end of a magnet attracts either end of a piece of iron; but if the north pole of a magnet be presented to the north pole of another they repel each other. in the same manner the two south poles repel each other. But the north pole of one magnet attracts the south pole of another.

All the phænomena of magnetism may be arranged under two heads: 1. The attractions and repulsions which they exert: 2. Their tendency to assume a peculiar direction.

I. *Attractions and Repulsions.*—6. The similar poles of magnets repel each other with a force inversely as the square of the distance.

7. The opposite poles attract with a force varying according to the same law.

8. Hence two magnets (supposing their action concentrated in their poles,) exert upon each other four attractions and four repulsions. When similar poles are presented, the sum of the repulsions exceeds that of the attractions. When opposite poles the attractions exceed.

9. If both magnets be fixed upon a pivot round which they turn freely, they arrange themselves so as to form a strait line, having their opposite poles towards each other. If one of them be fixed in any particular direction, the other, if at liberty to turn round a pivot any where in a line with the first, immediately arranges itself in a strait line with it. Thus one magnet always induces a particular position in the other. This is called the directive power of the magnet. The tendency to assume that particular direction in the second magnet is called its *polarity*.

10. By diminishing the size of the second magnet, we increase its polarity and diminish its tendency to approach the first. Hence the polarity may be very great, while the attraction is scarcely sensible. Hence the second becomes insensible at smaller distances than the first.

11. If the pivot of the second magnet be placed on a line perpendicular to the centre of the first, the second magnet will assume a position parallel to the first, but its poles will be turned contrary ways.

12. If the pivot be placed in a line cutting the first magnet obliquely, the second magnet will assume different positions according to its distance, &c. but these positions will always be the tangents to certain curves which may be ascertained.

13. When a piece of iron is brought near a magnet, it becomes a temporary magnet and acquires poles.

14. The magnetic properties of magnets, are injured or destroyed by heat, electricity, violent blows, or, by being kept with similar poles, turned towards each other, or even in the magnetic position with the south pole turned towards the north.

15. On the other hand iron becomes magnetic, or its magnetism is improved when hammered or heated in the magnetic direction, when kept in the magnetic direction with the poles turned the right way, or when different magnets are kept with their dissimilar poles in contact.

16. When the north pole of a small magnet is kept long enough in contact with the north pole of a large one, the first loses its magnetism altogether: if it be allowed to remain longer it acquires the opposite magnetism.

17. The magnetism of soft iron and steel is momentary, but that of tempered steel is much more permanent. It is gradually induced by placing it between the opposite poles of two magnets. By this induction the magnets themselves are improved.

II. *Direction, or Polarity.*—18. The magnetic direction which a magnet assumes is accounted for by supposing the earth to be a magnet, having its magnetic poles situated at some distance from the poles of the earth.

19. If a slender bar of iron or needle be very nicely poised upon its centre, and then converted into a magnet, it does not retain its horizontal direction; but the north pole in this country dips about 72° below the horizon. The dip diminishes as you approach the equator, where it disappears, and on the south side of the equator, the dip is in the south pole. This is precisely what ought to happen, if the earth be a magnet or contain one.

20. The directive power of the earth is considerable, but its attractive power is insensible.

21. The position of the magnetic poles of the earth has not been ascertained with precision. Mr. Churchman places them in Lat. 59° N. Long. 135° W. and in Lat. 59° S. Long. 165° E. The magnetic equator cuts the earth in Long. 15° West and 195° East.

22. The magnetic direction of the earth is continually changing. The needle of a mariners' compass does not always point the same way. At London, since 1585, it has shifted its direction about 35 degrees. The dipping needle however has only changed about 10°. This gradual change, is called the variation. It has not hitherto been accounted for in a satisfactory manner.

23. Epinus has explained the phænomena of magnetism by supposing the existence of a magnetic fluid precisely similar in its mechanical properties to the electrical fluid.

24. There is a striking analogy between electricity and magnetism. But this analogy has not been sufficiently accounted for.

25. The rays of an Aurora Borealis always converge towards the same point of the heavens to which the elevated pole of the dipping needle points.

26. Besides iron there are two other metals, cobalt and nickel, which possess magnetic properties.

Such is as short a sketch as possible of the numerous and important sciences, which belong to mechanical philosophy. The progress which they have made is exceeding different. Some, as Astronomy, may be considered as nearly perfect. Every phenomenon has been explained in a satisfactory manner, and shewn to depend on assignable mechanical actions. Others

as hydraulics, pneumatics, &c. are less advanced. It has been proved that the phænomena depend upon mechanical actions, but the precise intensity, direction, and combination of these actions, have not been sufficiently traced. Others, as electricity and magnetism, have made still less progress. In these the mechanical explanations of the phænomena are only hypothetical, and liable to be overturned by the progress of discovery.

III. MECHANICAL ARTS.

The Mechanical Arts, which depend upon the two preceding branches of Mechanical Philosophy, are exceedingly numerous. But from their very nature they are scarcely susceptible of an analysis, which shall at the same time be precise and short. Hence an account of them cannot with propriety be admitted into this general view of *Physics*. But one of the objects of the LITERARY JOURNAL shall be to lay before the public all the different improvements in these arts, which come to our knowledge. And in reviewing these improvements we shall have occasion, not unfrequently, to recur to the principles upon which these arts are founded, and even to give historical details of the progressive steps by which they have reached their present state of perfection.

II. AND III. CHEMISTRY AND PHYSIOLOGY.

Chemistry, or the Science which treats of the changes in bodies not accompanied by sensible motions, is neither less extensive, nor less important than Mechanical Philosophy. But as the explanation of its phænomena is more difficult, it is very far from having reached the same degree of perfection. Of late indeed, the progress which it has made has been extremely rapid. Many sets of changes have been generalized and classified; and if chemists have not succeeded in their attempts to give mechanical explanations of the phænomena, they have at least demonstrated that the greater number of the phænomena depend upon certain general facts, under which they may be all classified. We ought now to proceed to this classification of these phænomena, did not the great length, to which this introduction has insensibly swelled, make it necessary for us to bring it to a conclusion. We shall reserve therefore the general views of Chemistry and of Physiology, which we intended to give, for some future number of this Journal.

LITERATURE.

*** *THE same reason, which made us in our first Number defer the General View of any of the more extensive subjects contained under this head, has induced us to collect a few Articles, which may serve as a sequel to the General View of Polite Literature, which we then gave. A paper on the Philosophy of the Human Mind, will be given under this head in our next.*

REMARKS ON THE COMMENTATORS OF SHAKSPEARE.

IN reading the different editions of Shakspeare one is struck with the progressive accumulation of notes, which encrease in so rapid a ratio that they fairly promise in time to render the works of the first Poet that ever existed, like what has been said of those of a modern Poet of no mean excellence, mere pegs to hang the remarks on. That some of these remarks, so far from illustrating the writings of Shakspeare, are entirely irrelevant to the subject; that some confuse more what they pretend to explain, create difficulties where there are none, and leave real difficulties unnoticed, must be obvious to every reader of common sense. It is therefore the intention of the writer of these remarks to go through all the plays of our great dramatic bard, and to notice as he goes on the comments that strike him as absurd or negatory. In doing this he will speak his sentiments freely, yet with all the candour due to the feelings of the living and the memory of the dead; and the living critics will not, he trusts, be offended at the freedom with which he points out, that they have sometimes erred in an undertaking to which the abilities of a Johnson and a Warburton have been unequal; as the first is very often obviously wrong, and the last as obviously hardly ever right. Y.

TEMPEST. ACT I. *Scene II.*

So dry was he for sway—" i. e. thirsty. The expression I am told is not uncommon in the midland counties." STEEVENS.—Is not *dry* in all parts of the kingdom, and by all descriptions of people used in this sense, at least as often as thirsty?

A hint. " Hint is suggestion." STEEVENS. Surely this did not require a note.

Race. " Race, and Raciness in wine, signifies " [signify] a kind of tartness." BLACKSTONE.—The contrary is the case. They signify a taste of the native sweetness of the grape.

ACT II. *Scene II.*

I will not take too much for him. " Too much " means any sum, ever so much." STEEVENS.

" I think the meaning is. Let me take what sum " I will, however great, I shall not take too much for " him; it is impossible for me to sell him too dear." MALONE.

The first note I do not clearly comprehend, if it has any meaning it implies that he will not sell him at all. Mr. Malone may be right, but I am inclined to think Trinculo uses a figure very common among the vulgar, *viz.* using a denial for a strong assertion, As, ' to be sure I will drink no gin to day!'

ACT III. *Scene I.*

Ferdinand.—Here is my hand.
Miranda.—And mine with my heart in it.

" It is still customary, in the West of England, " when the conditions of a bargain are agreed upon, " for the parties to ratify it by joining hands, and at " the same time for the purchaser to give an earnest. " To this practice the Poet alludes." HENLEY.

I cannot think the Poet had any such allusion in his head, but only thought of the common expression of giving hand and heart together. It is impossible to conceive why the critic should mention the very common custom of binding a bargain by shaking hands and giving earnest, as obsolete, except in the West of England.

ACT IV. *Scene I.*

Bosky Acres. " Bosky Acres are fields divided " from each other by Hedge-rows." STEEVENS.

Bosky acres are shrubby acres. Mr. Steevens seems

to have mistaken the meaning of Hedge-row. A kind of narrow thicket dividing two fields is in some countries called a row; but a hedge-row is a line of forest trees planted in a hedge.

Act V. *Scene I.*

For a score of kingdoms you should wrangle,
And I would call it fair play.

"I take the sense to be only this: Ferdinand would "not, he says, play her false for the world: Yes, "answer she, I would allow you to do it for some-"thing less than the world, for twenty kingdoms— "and I wish you well enough to allow you after a "little wrangle that your play was fair. So likewise "Dr. Grey." JOHNSON. This note would have been quite just had it ended with *kingdoms*, but the latter part of it refines too much on the simplicity of the reply.

Shakspeare uses wrangling as equivalent with playing false and with unfair advantage. In Henry the fifth the King directs the French Ambassadors to tell the Dauphin, in allusion to the tennis balls, that

'He hath made a match with such a *wrangler*,
'That all the Courts of France will be disturb'd
'With Chaces.'

GIFFARD'S JUVENAL.

A COMPLETE translation of Juvenal, by a Gentleman who has already acquired high reputation as an original Satirist, may well be considered as one of the most interesting productions of the present time. The accomplishing of this by one hand, when the fruitful pen of Dryden contributed only a few satires to the former translation, might fairly plead an excuse for many defects and inaccuracies, if the whole had any degree of general merit; but no such excuse is here necessary; and while we give our unqualified praise to the general execution of the work, the blemishes are so few, considering the great extent of the undertaking; that though the eye of malignity might select from so many verses some defective ones, such a selection would neither do credit to ourselves, nor give satisfaction to our readers.

As we rather profess to give an analysis and a general character of the works we review, than extracts from the works themselves; to criticize a translation is one of the most difficult of our tasks, since so much depends on the comparison of the copy with the original. But we will endeavour as concisely as possible to shew our idea of the merit of the work. The verse is in general well calculated to convey the spirit of the original, smooth yet majestic; we say in general, for in some few parts it descends to common and mean expressions, which are seldom to be found in Juvenal. But when the Poet assumes the high tone of satire, and attacks vice with all the energy of insulted and indignant virtue, the language of the translation is a faithful interpreter of its arche-type.

As this work is obviously a translation, and not an imitation of Juvenal, we must except against any introduction of British instead of Roman ideas. On this principle we strongly protest against these lines in the VIIIth Satire:

'I grant your claim and recognize the *Peer*.
'But who shall call him great who founds his claim
'To *title* only on a father's fame?'

Since *title* in this sense was unknown to the ancients.

Again in Satire XI. we find, '*Sir* Pollio'

Though it is certainly not the duty of a translator so far to compress his work within the same compass with the original as to be obscure, we must think it the duty of a translator not to run into needless dilation, of which there are many instances in this work.

From the comparative length of a Latin and English Heroic Verse, and the Latin having no articles and no pronouns annexed to the verb, it would seem at first sight impossible to bring a translation at all within the same compass with a Latin original; but on considering the comparative length of words, the difficulty will decrease, and if we count the words in the first ten lines of the first satire, we shall find more words in each line of Giffard, than of Juvenal. In Greek this advantage (if it is any) is still more in favour of the English.

Of the notes it is sufficient to say, that they are exactly what notes ought to be, short and pertinent; not swelled into long and irrelevant dissertations to shew the learning of the critic, or fill the page of the publisher, and where the reader finds every thing except what he seeks; but elucidating difficult passages, and explaining ancient customs, and allusions to the character and manners of the time. Indeed so much of the public history of the age, is connected with the writings of this satirist (for while Horace laughed at the follies of the gay, and the polite only, Juvenal severely lashes the crimes of the great and the mighty,) that these notes, compressed as they judiciously are, will form a useful comment on the pages of Tacitus and Suetonius, as well as of Juvenal, and his friend and contemporary Martial.

One or two of the most exceptionable passages we shall here notice. The spirited and concise opening of the fourth Satire, 'Ecce iterum Crispinus,' is not well expressed by

Once more my voice—(and oft shall I renew
The alarming strain,) calls forth to public view
Crispinus.

And it is rendered still weaker by the introduction of the parenthesis before Crispinus.

In a note on Sat. vi. v. 239. Mr. G. says, 'the hogs in Judæa, had I fancy no particular indulgence.' Surely not being killed and eaten was some indulgence.

In Satire XI. v. 140.

'Stern Censors kept their stern colleagues in awe,'

does not represent the original faithfully:

— — — — Severos
'Censoris mores etiam collega timeret.'

the word *etiam* gives a force to the passage, that is not to be found in the translation.

But to translate every line, in so long a work, with the precision required in an epigram, is beyond the grasp of human industry, and we must say with another Roman satirist,

—Ubi plura nitent in carmine, non ego paucis
Offendar maculis.

On the whole, we have no hesitation in declaring our opinion that this publication is a valuable *addition to the Stock of British Literature.*

POEMS ON SEVERAL OCCASIONS, By a Lady.

We have been favoured with the sight of some "Poems on several Occasions," written by a Northern Beauty, alike distinguished for splendor of rank, and attraction of form. Though they have been committed to the press, it was not the intention of the Fair Authoress, that they should pass the precincts of private friendship, much less that they should be subjected to the ordeal of public criticism.—If the character of the Poems called for the severer exercise of our duty, we should forbear remark altogether, but on the present occasion, it is not necessary that our judgment should become the dupe of our feelings, or that our gallantry as men, should supersede our duty as Critics; for the Poems under review offer more occasions for praise, than for censure. A strain of pensiveness pervades the whole, but it cannot be said, that the Poems exhibit "the melancholy-madness of poetry, "without the inspiration." On the contrary, the plaintive reflections we meet with seem to be naturally suggested by the contemplation of the scenes which are described.

The Poem which commences with the lines,

"High on the rocky cliff I stand,
"O'er hanging far the sea beat strand,"

is remarkable for many chaste poetical images, and for much harmony of versification; though perhaps the introduction of some lines in heroic measure is not strictly consonant to the rules of metre. "The Prayer," and the "Ode to Impatience," have many characteristic beauties, and the lines to the "Swallow," might lead us to suppose, what we hope is untrue, that the advantages of rank had not shielded our poetess from the frowns of fortune.

On the whole, if these Poems furnish no decisive proof of the aristocracy of Genius, they at least shew that our fair Authoress is entitled to no mean rank in the republic of Letters. M.

THE INFIDEL FATHER, by the Author of 'A Tale of the Times,' 'A Gossip's Story,' &c. Three Volumes Duodecimo.

This novel in point of moral and religious sentiment is certainly very deserving of applause; to which merit may be added a considerable degree of interest in the story; but we should have been better pleased, had the catastrophe of the Earl of Glanville, and his daughter, been brought about with circumstances less shocking. It savours too much of the German School, which throughout the work is so strongly and justly reprobated. It is our opinion, however, that this performance will not diminish the reputation which the Authoress has already so deservedly gained by her former publications.

LITERARY ANECDOTES.

In the reign of Charles II. a Professor of Glasgow, named Zachary Boyd, translated the Bible into rhyme, and left the MS. to the University of Glasgow, with a legacy of 3000l. to defray the expences of printing it. The University refused to accept the money but retained the MS. That they consulted both their own credit and that of the testator in not publishing it will appear from the following specimen:—

'Jonas was three days in the whale's belly without fire or candle
'And had nothing all the while but cold fish guts to handle.'

ANECDOTE RELATIVE TO TOM JONES.

WHEN Fielding had finished his novel, being much distressed he sold it to an obscure bookseller, for 25l., on condition of being paid on a certain given day. In the mean time, he shewed the MS. to Thomson; the Poet, who was immediately struck with its great merit, and advised Fielding by all means to get free from the bargain, which he did without much difficulty, as the bookseller was not capable of estimating the value of his purchase. Thomson recommended the work to Andrew Miller, and the parties met at a tavern over a beef-steak and a bottle. Miller began with saying, "Mr. Fielding I always determine on "affairs of this sort at once, and never change my "offer. I will not give one farthing more than two "hundred pounds." Two hundred pounds? (cries Fielding,) 'yes,' (says the other) 'and not one farthing more. Fielding, whose surprise arose from joy, and not disappointment, shook him by the hand, seal'd the bargain, and ordered in two bottles of wine.

Miller got a very large sum by the sale of the book. He at different times during his life, assisted Fielding with 2,500l. which debt he cancelled in his will.

ORIGINAL POETRY.

VERSES TO A LADY.

WEEP not that scandal's baleful art
Has tried to injure thee,
For when from rancour's poisonous dart
Were wit and beauty free?

Still will the wasp with ravenous jaw
The fairest fruit devour,
Still will the bee the fragrance draw
From out the sweetest flower.

Each leaves a stamp of worth behind,
On charms they never spare;
For where we chance their trace to find,
We're sure of merit there.

E.

MANNERS.

THERE are few characters more unpopular in the present day than that of the rigid moralist, of the man who makes no allowance for the days of youth, the influence of custom, the frolics of gaiety, or the laws of fashion. To avoid this character, therefore, if it be possible, must naturally be our wish while we remain candidates for public favour. That we shall encounter many difficulties in accomplishing our plan without suspicions of rigidity, is but too obvious from the experience of some of our predecessors and of some of our contemporaries. But the attempt at least will be meritorious; and wherever follies happen to come in our way we shall endeavour to receive them with courtesy and good-breeding, unless

indeed, which may sometimes happen to be the case, they should unexpectedly intrude upon us at unseasonable times. It is *possible* we may be invited to a private masquerade during Lent, or to a card party, smuggled under the cover of a concert, on Sunday; and when such mistakes arise we cannot promise to retain the same serenity of temper as, we hope, will predominate in our more general intercourse with the manners of the age.

It has already been hinted in our first Number, and is indeed sufficiently notorious to be the subject of much complaining, that those very numerous assemblies called *routs* and *pic nics*, are not perfectly consistent with the duties and employments of rational creatures, that they lead to improper associations, and to certain flagrant consequences which at first sight it would not be easy to trace to them. But if we consider these assemblies in the spirit of liberality, and learn to make the proper allowances for the change of manners which has taken place within the last fifty years, or perhaps within a shorter period, we shall see nothing more extraordinary in this than what happens in other cases of which no complaint is made. If we consider the many humane institutions in this country, we shall perceive that the object of each of them is to provide remedies, or food, or employment, for some particular class of society incapable of providing itself with these necessaries. And what are routs and pic nics but combinations, or associations of certain humane persons to make provision for the idle and the weak, that they may not be brought to despair for want of employment, and either prey upon one another or take to evil courses, and come to untimely ends?

Let the question be viewed in this considerate and impartial light, and we shall see that such humane societies are not only highly beneficial by providing for the helpless, who cannot be trusted to themselves, but that the principle of them has long prevailed in our systems of domestic education. It is well known that the world was over-run with scandal, with "hatred, malice, and all uncharitableness," that men forsook the company of the fair sex, besotting themselves with drinking healths to the very ladies whose society they abjured, and all manner of conversation had an evil tendency, until, in a propitious hour, that sovereign remedy *cards* was discovered. No sooner did this amusement become common than character became safe, reputations were no longer blown up with the steam of the Chinese weed; the loquacious became silent, and the gay became grave. And to this day, whenever any of the rigid moralists object to cards, the answer is, "cards are better than talking scandal," an excuse which has caused them to be introduced very frequently on a day that in this country is appropriated to other studies, and that in the opinion of some, perhaps whimsical people, may yet be very profitably spent by a medium employment between playing and talking.

It is upon the same principle that some have complained that the theatres are shut during Lent, and certain other days set apart by our church as days of pious commemoration. "Why," say they, "are they not open; would not the lower classes be better employed than in the alehouse?" By a parity of reasoning therefore, if attended to, a suitable provision would be made for those days and parts of days which it appears *must* be spent at the alehouse. Government, however, has not yet been so compliant with the wishes of some of its subjects as to listen to these requisitions, and seems to be of opinion that the redress of *some* grievances may with great propriety be left to the people themselves: and how well they have redressed the grievance of religious observances experience demonstrates very extensively and intelligibly.

While, therefore, it is the principle with one class that there is no medium between the church and the alehouse, except the theatres; and with another, no means of avoiding scandal except by filling up the interstices of thought with gaming, it is but an enlargement of the same wise policy, and generous sentiment, that associations should be established for the employment of the idle, and for the amusement of those who from weakness of nerves, or other causes, cannot be left alone. In these societies each is put upon that kind of work which he or she is most capable of performing; and the great enemy, Time, is defeated on the very grounds where perhaps he vainly hoped his triumphs would be most lasting, and where, like Shakspeare's clown, he thought "to bestow all his tediousness."

If we consider the matter in this favourable and, surely, just light, we shall see occasion to blame the rigidity of the moralists who censure, or of the wits who ridicule such entertainments. And we shall on the other hand find great reason to praise the humanity, as well as the ingenuity of the inventors of "councils of five hundred" assembled to countenance each other in the consumption of time, and to present an impregnable front to the censures and sneers of the tasteless part of mankind. And they who will consider the matter thus liberally and generously, must be happy to learn that a rivalship between the two nations most noted for humanity to the idle, is about to take place, or rather an intercourse has been established, and a combination formed by which they will be enabled to provide for the idle of both countries in such a manner as to shorten that immense duration of time which has hitherto oppressed them, and apportion to every hour of the night its different employment.

All professions have found it necessary to associate for their mutual countenance and support. What else is the origin of corporations at large, or of those lesser corporations which we call livery companies? and of late years this method of concentrating force and influence has been yet farther extended: We have societies of the faculty, medical and chirurgical; clubs of the gentlemen of the bar; societies for the promotion of various arts and manufactures; chambers of commerce; and committees of docks and canals. And why, in this general diffusion of the principle of association, the idle and the vacant should remain a scattered and straggling body, defenceless, and open to all attacks from wits and moralists, from preachers and essayists, is a question which, we presume, few will be able to answer. But the day of negligence

full contempt is past; those societies are now formed which will bid defiance to argument and ridicule, and it will be no longer a public reproach that there is one great class of society left destitute of all means of passing life with rapidity and comfort.

It is a maxim of law that every cause has two sides, and it is a maxim of justice that both sides should be heard. In the defence now offered for the prevailing mode of sharing friendship, and extending domestic happiness according to the measurement of our rooms, and the width of streets, we have been guided by these maxims. The side of the plaintiff has been too long heard, and *ex parte* evidence has prejudiced the minds of the public. It is high time the defendant should be allowed to put in his plea, and this we have now attempted, with an honest intention, if our intention be rightly understood; but, we are afraid, with less ability than might have been necessary to dignify so important a subject. Had we been disposed to flourish, as is the case with some pleaders, and travel out of the record, in order to amuse the jury, we might have extended our arguments, by adverting to the fame which is acquired by tumultuous associations, and we might have read a few columns of those reports of routs which, with a generous contempt of paper and print, have so long astonished the disciples of the old school of social enjoyment. We might have given a prolix account of dresses rendered more tasteful by being transferred to paper; we might have enlarged on the productions of the hot-house, by which winter is turned into summer, and might have counted the variegated lamps by which night is turned into day. But we leave these matters, however important, to those eminent authors who have made them their particular study, and who evince the versatility of their talents by discussing with equal perspicuity the principles of a statesman, and the ingenuity of a pastry-cook, and in examining proclamations and acts of parliament lose nothing of the eloquence they have bestowed on *blanc mange* and *jellies*.

But while we, for the present at least, resign the lesser concerns of these associations, it becomes us to confess that there is a degree of imperfection in all human things. Valuable as these associations are for the preservation of the idle and the vacant from the attempts of moralists and wits, they are yet but in their infancy, and have not been instituted, in our humble opinion, with that eye to futurity which ought ever to be kept watchful. They are admirably calculated to answer present times and present purposes, but they appear upon the whole to be constituted more with a view to temporary aid, than to permanent countenance and support. Taking a hint, as we have already been obliged to do, from our many charitable institutions, we would insinuate in the most respectful manner, that one thing is yet wanting. It is a great matter to provide work for the poor, who are willing and able to work; but a time must come, when without any diminution of good will, they will lose the power. For this, a provision, it is well known, is made in our common charitable institutions, but it is a very serious thing to think that no provision has been devised for the SICK IDLE. Some of our modern philosophers, indeed, have told us that sickness is mere imagination, and that death itself may be avoided, if we have *a mind*; a doctrine which we must allow is a little singular from those who endeavour so constantly to persuade us, that mind and body are made of the same materials. These philosophers, however, are now rather out of reputation. Some have disgracefully abandoned their principles, and some have lost their disciples by deaths to which it is supposed they had not *a mind*. We must be content, therefore, to submit to the usual inconveniences of indisposition, and disease, and it becomes us to provide accordingly; especially as, for whatever cause, the frequency of illness is to be enumerated among the imperfections that adhere to this excellent institution. In what manner this is to be effected, in what manner pain and anguish, and solitude are to be appeased, it is not for us to determine. But we have witnessed too many proofs of the ingenuity of those who study the consumption of time, and the diversion of thought, to question their capacity in taking the hint we have thrown out. We have heard of a game at cards that is intended to be played by one person only, and perhaps, some ingenious artist may invent a *portable route* for sick rooms, or a small *pic nic*, which may be taken with their medicines. But although it is not within our province to invent for men of such various ingenuity, we could not suppress our opinion of the necessity of some scheme of the kind. Men may differ about the means, but the end is the same, and it is to the end that we would direct the attention of our readers; and it is that end we had in view throughout the whole of this lucubration.

It may indeed be said, that associations of the nature we have been speaking of, are wisely calculated both to prevent sickness by diverting the thoughts of it, as of a thing impossible, and likewise to inure the habit to bear it, by first bearing all the pain of compression, want of breath, noxious air, &c. This, it must be acknowledged, is true in a certain degree, but *only* in a certain degree; and it will be found that there is a considerable difference between voluntary and involuntary illness, between those diseases which strike us with a shock, and those to which we are invited by a ticket. In the one case, we are left alone, which is of itself sufficiently shocking, and in the other we have the consolation that "every one is in our own situation;" here are, then, the miseries of solitude, and the comforts of juxta-position; the nauseous prescriptions of a physician, and the delightful reports of a fashionable news-paper. No contrast can be more striking, or exhibit more fully the necessity of that provision for the SICK IDLE which we have recommended, and which we hope the parties concerned will immediately take into their most serious consideration. It is the urgency of the case which has induced us to enter upon the subject so early in our progress, and which will farther induce us to watch such improvements as may be made in the system in the course of the present, or rather the approaching season.

R. S.

POLITICS.

THERE are other changes which have taken place in Europe, beside the changes in the territorial or physical situation of the different powers; far more important than those, of far more permanent effect, and on which the future operations and fortune both of the parts and of the whole much more depend. These are the changes in the occupations, sentiments, pleasures, and whole economy of life of every rank in every country in Europe. For though some of the nations have not partaken so largely in these alterations, as others, there is none exempt from them.

We are of opinion that a knowledge of these changes is indispensably necessary to form a notion in the smallest degree accurate of the present state of Europe, or any rational conjecture of the transactions which are likely to happen in it. We shall therefore attempt a slight, but as far as possible, a faithful sketch of this important subject; though we are not insensible of the difficulty of the task. To describe the geographical, financial, or military strength of any country or countries, requires but access to the knowledge of facts, and ability to transcribe them distinctly from the memory. But the invisible changes wrought upon nations by the operation of moral causes are not so easily discovered. They can only be traced by one habituated to profound reflection on the nature and operations of the mind, and on the circumstances calculated to produce effects upon it; one of the rarest, as it is one of the most valuable talents among men. We cannot be suspected of the absurdity of presenting ourselves to the world as the persons accomplished for this undertaking; but if we should do nothing more than demonstrate to our readers the importance of the consideration to perfect their views of the state of Europe, we shall think that we have performed one service of some utility. We shall at least, too, open some of the more important sources of reflection to those who are willing to prosecute the investigation. And we shall be able, by means of this previous discussion, to explain much more distinctly hereafter our opinion of the consequences of the different political movements in Europe, which we shall have occasion to notice.

It may with safety be affirmed that so total a change, among so great a portion of the species, in the whole system of social transaction, as has taken place among the inhabitants of Europe in the course of but a few ages, was never before exhibited among mankind. For the change effected by the inundation of the civilized world by the northern barbarians was violent, involuntary, accidental, and not to be accounted for by the general laws of human affairs. During the whole of the above mentioned period, however, Europe has been subject to the action of none but ordinary causes, and has been altered only by the natural operation of the circumstances in which she has been placed.

That we may understand completely what Europe now is, it is necessary to advert a little to what Europe formerly was. The feudal institutions formed a system so strong as maintained its place for many ages, and kept the inhabitants of Europe in a state resembling not a little that in which they were before they quitted their woods and marshes in the north. It is difficult to conceive a political arrangement more adverse to the improvement of the species, than the feudal. The subjects of every country were divided into two orders, of which the one was in complete subjection to the other. There were no manufactures nor commerce. The sole employment of the citizens was to obtain a rude subsistence from the earth: they spent the rest of their time in idleness at home, or in waiting upon their chief. The business of the chief was the sports of the field, or the riotous consumption of the rude produce of the earth, conveyed to his castle as rent by the miserable occupiers of his land. The barbarity of both orders in the state was nearly equal. They could neither read, nor write. They were incapable of all notions of regular government, or law. The coarseness of their Manners was disgusting. The furniture of their ponderous castles scarcely deserves the name; and the nastiness which prevailed in them was shocking. The distance however between the two orders was extreme. It was held necessary that the chief should be distinguished, by a particular name, from a class of creatures so far below him. This was the era accordingly of the introduction of titles, a novelty for which the [illegible] indebted to the feudal times.

During the last 300 years the operation [illegible]in causes has been sapping that coarse, but [illegible]ng and lofty pile, which long opposed a barrier [illegible]surmountable to the introduction of impr[illegible]ne rescue of the people from the dominat[illegible]ean lords was absolutely necessary to the [illegible]ce-ment of industry. No man will wo[illegible]asure, and by consequence to any effect, unless he be his own master, and have security to reap the fruit of his own labour. When vassalage was destroyed, and people were rendered subject only to the kings laws or mandates, the barons still retained their immense possessions, their haughty pride, and the reverence, (the durable effect of long habit,) borne them by the people. The produce however of every man's labour, even the meanest man's, being now rendered his own; many of those who had nothing, exerted themselves to get something. Industry improved. Manufactures arose. The commodities of life which these afforded, being more refined, excited stronger desire, and by consequence more active exertions to obtain them. Every one, who had nothing to give in exchange for them, laboured to procure something. This class of men therefore encreased their industry. Those who possessed an equivalent, such as the old proprietors, gladly parted with it; and they diminished, and sometimes ruined their estates. Wealth became accumulated in hands which never before possessed any; and a new order of citizens, a third or middle order, arose in most of the states of Europe. The necessary effect of the progress of industry, and wealth, was to enlarge this middle order in point of numbers, and elevate them in riches, both as a body and as individuals. When the ancient nobles were stript by law of all authority over their fellow citizens, and equalled by some of them in wealth, the only peculiar distinction which they retained, was that reverence, the effect of long habit, which we have spoken of above. They

prided themselves, however, very highly, on the peculiarity of this distinction; and were very jealous of its fancied rights. They affected a vast superiority to the other orders of the community. They were anxious to keep them at the greatest possible distance. They surrounded themselves with a vast croud of attendants. They desired to associate only with one another, as being too good to share their company with any persons of a different description. And they adopted a peculiar set of manners, as distinctive of themselves, remarkable for excess of ceremony and a multiplication of forms, and phrases.

To this state had the progress of industry, and the arts, nearly brought things through a great part of Europe, when the last century commenced. The changes which have happened since have not been less rapid, nor less important. The multiplication and refinement of all the accommodations of life daily tempted some of the proprietors of ancient riches to sacrifice them to the pleasures of the day, to expose themselves to that contempt which attends upon poverty, and their order to a certain loss of reverence by exhibiting a [illegible] of it in a degraded state. At the same time the [illegible]ement of industry daily elevated a greater number to an equality with the ancient lords in point of riches. These rendered dependant, in some measure, upon themselves, a multitude of their fellow citizens, from whom naturally they received a certain homage. The reverence of the people in this manner became divided; and the nobles were obliged to share with the newly rich. In every nation of Europe this effect kept exact pace with the progress of industry and improvement. In Great Britain (for it is [illegible] to reckon the small commercial republics) it proceeded with the greatest rapidity. In France, of all the other monarchies of Europe, it made the greatest progress, because her industry and wealth were in the next degree. She had not however improved in this respect so much as Great Britain, and the ancient reverence of nobility continued there longer in force. It was aided by the reservation to the nobles in France of certain privileges, communicating solid power, advantages of which the nobles in Great Britain, who were put by law on the same footing with the meanest subject, were entirely stript. By opposing, too, the acquisition of wealth by the other orders of the state, these privileges served to perpetuate the reverence of the nobles in France in another, and a very unfortunate way.

With Industry grew up Literature, another power of mighty effect in the affairs of Europe. We are saved in this case from the investigation of the general causes which necessarily beget a taste for literature at a certain stage of improvement, because we know the particular cause of the revival of literature in Europe after the dark ages. It is fully proved however that society was at that time brought forward by preceding circumstances to that state when the taste for literature becomes natural, by the ardour with which it was prosecuted as soon as ever it was introduced. It was only by slow degrees indeed that the nations rose to habits of just thinking, or of delicate taste. But the operation, once begun, proceeded. It presented new objects of curiosity to some, and of ambition to others, and a new and numerous class of ideas to all; which greatly increased the materials of thinking, and created a new activity, and ardour of mind which reached to people of all descriptions. This progress was happily conjoined with the operation of an engine, the discovery of which is perhaps the greatest event in the history of the actions of man; the art of printing; which facilitated, and encouraged the communication of ideas in so extraordinary a manner. Literature grew every day more engaging, and instructive. A taste for it in several of the leading countries of Europe became general among all the higher orders of the state, and extended its influence even to the lower.

Literature has a double power. It not only rouses the activity of the mind, and makes it seek about for improvement, a power which it possesses in common with improved industry. It possesses besides, both a censorial, and didactic power. It points out what is wrong, and directs to what is right, in government, in arts, in manners, in the whole economy of human transaction. It does more; it creates a disposition to adopt improvements in all these respects.

The operation of these two causes, the progress of industry, and the progress of literature, has altered the face of Europe; and entirely changed the character, the employments, the sentiments, the manners, and customs of all its inhabitants. Instead of being spread over the face of the country, employed in picking up from it a rude subsistence, or hunting the animals which it produced, the whole of the inferior part of every community is distributed to a vast number of employments, and entirely engaged in every variety of ingenious or useful operation. Instead of the wretched accommodation of the castles of the ancient barons, which made them seek for almost all their pleasures without doors, the rich are now presented, by the refinement of our arts and manufactures, with every thing which can indulge, or gratify their senses, and of course find the greatest part of their pleasures in the house.

Another change of the greatest importance has been the effect of these causes. It is the nature of the pleasures, promoted by refinement in the arts, to be enjoyed with double relish in society. In the progress of that refinement, in modern Europe, social habits have become every day more prevalent, and the passion for social enjoyments more strong. The stiff and stately demeanour, and the numerous forms and ceremonies of the old politesse, adopted to keep the vulgar at a distance, were found to be a considerable incumbrance to social intercourse, and a hindrance to social enjoyment. As the passion for this enjoyment advanced, these were gradually thrown off; during the last fifty years in particular this has been strikingly observable. The nobles themselves could not resist the influence of the general tendency of their fellow citizens to value those who could show equal magnificence with themselves; and their passion for social pleasure made them gradually willing, and at last desirous to take into their company all who could contribute to that pleasure. In this manner is the distinction of ranks gradually disappearing in all the countries of Europe. In dress, in manners, in lan-

guage, and pleasures, the assimilation of several of the ranks is complete. In some other countries these distinctions have not so much disappeared as in this, where the superiority of a nobleman is rather nominal than real. The same thing however is rapidly advancing in all the countries in Europe.

Before the introduction of industry, men, being in a great measure unemployed, are fond of war. The feudal institutions were calculated for a state of warfare. The nobles having none of those enjoyments at home, which could make their lives pleasant, or even comfortable, were never happy but when in the field, either for the chace, or for combat. Now, the case is altered. The arts which minister to the accommodation of life have made so much improvement, and the means of pleasure which they furnish to the man who is able to command them, are so great, that when he relinquishes them to undertake the toils and hardships of a campaign, he sacrifices something of magnitude. When an ancient baron took the field, he left nastiness, and misery, and gnawing idleness at home, for the pleasures of activity, and of the braving of danger. The inferior part of the community being equally unemployed, and if possible more wretched, were always ready to assemble together at the sound of war, which at least afforded some variety to their listless life. The changes introduced into their mode of life are more opposite to war, than even those into the life of their superiors. Every individual has now his place. Every individual is actively engaged, and cannot leave his station without reluctance, without being missed, without leaving a task, which no one will perform in his absence. The decline therefore of the military spirit is very visible, and may be traced holding almost exact progress with the advancement of improvement. It will easily be seen, that by the military spirit, we here mean only the propensity to warring, and the estimation of military glory. We are far from being of opinion that there is less real courage or capability of military enterprize in Europe at present than was in the feudal times, or that there is least in the most improved states. Military talents, however, being less useful, and less rare, are now universally less valued than civil abilities. What general, or what admiral vies in our estimation with the late Lord Chatham? Had Bonaparte's exploits terminated with the battle of Marengo, his fame would only have surpassed that of Dumourier, or Dessaix; perhaps that superiority would even have been disputed.

That activity and ferment, into which the minds of men are thrown, by so excessive a multiplication of the objects of curiosity and desire, as Europe now presents, is productive of another effect of the greatest importance in the affairs of the world. That important effect is restlessness, and a love of change. The desires, and wants of men become encreased prodigiously, which stimulate them incessantly, and daily urge them on to new contrivances. The imagination is whetted; the senses are all refined, perhaps to excess of delicacy; and in this state the mind is continually looking around for something to improve in its situation. This restlessness and love of change has always therefore been found to accompany a high degree of refinement in the luxurious, and elegant arts. This has been signally exemplified in Europe for a certain time past. It is vain to rail at it. It is a necessary effect of that stage of improvement, at which she has arrived. That it is a dangerous propensity, if not under proper direction, is true. It is true likewise, that the effects of a rash indulgence of it in things of great magnitude have been deplorable in a recent instance. But it is no less true, that it is in itself a salutary propensity, and a powerful promoter of man's improvement. Every thing is tried. And it never happens that a real improvement is lost. This is a chief reason why improvement goes on so much faster after civilization has made a certain progress, than when men are in a state comparatively rude, and when they are tenacious of all their old forms, and practices, whether good or bad. From this too we are disposed to draw a conclusion, which to ourselves is very gratifying, that, notwithstanding a recent instance, violent revolutions are much more unnatural to a civilized than to a rude state of society. In the civilized state by continually encouraging small innovations, changes take place without being felt; but in the rude state every tendency to change is opposed till it has gathered irresistible strength, and then makes its way by an explosion. What extraordinary, and important changes have taken place in Europe during the last hundred, nay the last fifty years, which in their progress were never reflected upon, but which now, when viewed collectively, present an object of such magnitude! That changes of equal, nay of superior magnitude will take place during the next fifty years is what the experience of human affairs gives us reason to expect. Society is not now in that state, in which its affairs can remain in the same situation for centuries together, as they did formerly in the days of rudeness. The affairs of Europe are now in rapid and violent movement, and changes in every quarter will every day be the result. The men who guide those affairs ought to be men qualified to follow these motions and changes, with rapid, and intelligent eye. Your men broken to move only in a beaten track, your men of routine, your men of figures, and of the desks, as Mr. Burke called them, are no longer qualified to conduct the affairs of the world. They must be men of enlarged, and comprehensive, and liberal minds, men trained to profound, and philosophic reflection on human nature, and human affairs; capable of anticipating the results which the violent ferment of a highly civilized, a highly commercial, a most wealthy, most luxurious, and most restless state of society will bring forth; and capable of adapting with skill, and rapidity, new means to the production of new ends.

*** *The lateness to which we were driven by several unavoidable circumstances, before our first Number could go to press, precluded the possibility of that Typographical Accuracy for which it is our wish that the* LITERARY JOURNAL *should be distinguished. The following errata are the most material:*

p. 4, *l.* 41, *for combustibles,* read *salts.*
p. 5, *l.* 7, — *Warner,* — *Werner.*
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God said—Let Newton be!—and all was Light. POPE.

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London: Printed for H. D. Symonds, No. 20, Paternoster-row.

*** The inconvenience arising from the great scarcity of former Editions of Sir Isaac Newton's Principia, and System of the World, added to the exorbitant prices charged for them when to be met with, determined the Editor to undertake a New Edition of those Works; and he is impressed with confidence that no other apology will be thought necessary, at a time when Mathematics is become a fashionable science, and is looked upon as a necessary acquisition in the polite world.

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NUMBER 3.] THURSDAY, JANUARY 20, 1803.

[General View of Physics—Continued from our last.]

THE physical part of our two preceding numbers has been occupied with a general view of the present state of natural history and mechanical philosophy. Chemistry and Physiology, the two remaining branches of physical science, have not yet reached the same degree of perfection, which has been attained in mechanical philosophy. Chemistry, however, has been advancing of late, with accelerated rapidity; it has deservedly become one of the most popular of all the sciences, and promises to be, in a short time, established upon a foundation equally solid and unalterable with the sister science. Unfortunately the same remark does not apply to Physiology; for physiologists, notwithstanding the zeal and abilities which many of them have displayed, are hardly yet agreed about the first principles of their science.

The object of Chemistry is those changes, produced by the action of substances on each other, which are not accompanied by sensible motions. These changes cannot be produced by the action of large masses of matter on each other as wholes, otherwise they would of necessity be accompanied by a sensible motion: It can only be the minute particles or elements, of which the respective bodies are composed, that act upon each other. Hence the first object of chemists is to ascertain the number and properties of these elements or acting bodies, and the compounds which they form when united together. To detect and examine these bodies is a difficult task, and much labour and skill are necessary to separate them from each other, before they can be subjected to examination. But if we wish to extend, and complete the knowledge of the elements of bodies and their compounds, on which the whole of chemistry is founded, we must make ourselves acquainted with the various contrivances which chemists have fallen upon to decompose bodies, or we must make ourselves masters of the rules for conducting the chemical analysis of substances, as it is termed. After this we are prepared to classify the immense body of chemical facts of which we have acquired the knowledge, to shew their dependance on each other, and to reduce them under general principles. We can now apply the general chemical facts or theories, which this classification and examination have enabled us to discover, to those phænomena of nature or kindred sciences, which appear in a great measure dependent upon chemistry, to the improvement of the chemical arts and manufactures, and to the preparation of chemical substances employed in analysis.

Thus Chemistry in its present state naturally divides itself into four distinct heads; namely,

1. Description of the elements of bodies and of their compounds.
2. Analysis of bodies.
3. Classification and theory of chemical facts.
4. Application of chemistry to the kindred sciences and arts.

Let us take as short a view as possible of each of these four divisions.

I. Elements of bodies and their compounds.—By elements chemists understand bodies, which they have not been able to decompose; and not substances absolutely simple and incapable of decomposition. They even entertain the hope of being able hereafter to decompose several of these bodies, and then a new set of elements, at present unknown, will come into view.

The elements, or simple substances, at present known, are 44 in number. Of these there are 28 bodies which are combustible, namely, 24 metals, and hydrogen, phosphorous, carbon and sulphur. There are thirteen of them incombustible, namely, azot, two fixed alkalies, and nine earths. The three remaining simple bodies are oxygen, calorific or heat, and light. The compounds formed by the combination of these bodies are exceedingly numerous; but they have been classified by chemists and may be found in the different systems of chemistry.

II. Analysis of Bodies.—The method of analyzing bodies has been lately reduced under rules, of such precision, as to bring this branch of the subject to the state of an art. These rules vary considerably according to the nature of the substance to be subjected to analysis. Hence the Analysis of Bodies has been subdivided into six different branches; namely,

1. The Analysis of gaseous bodies or airs,
2. The Analysis of mineral waters,
3. The Analysis of salts,
4. The Analysis of minerals,
5. The Analysis of vegetables,
6. The Analysis of animal bodies.

To this head belong the changes and improvements, which are occasionally made in the chemical apparatus.

III. Classification and Theory.——The chemical changes which bodies produce on each other are of so intricate a nature, owing chiefly to the minuteness of the agents, that it is extremely difficult to measure them with precision. Even the possibility of that rigid explanation, which has succeeded in mechanical philosophy, seems at present above the reach of human sagacity. However the greater number of chemical facts have been classified, and reduced under three heads; namely,

1. Affinity,
2. Combustion,
3. Action of heat and light.

The first of these heads is the most general, comprehending under it almost the whole of the science. But unfortunately it has been necessary to subdivide it into a number of heads, consisting each of certain less general facts; and it has hitherto been impossible to show the dependance of these upon the general

one expressed by the term affinity. The second and third heads are subordinate and included under the term *affinity*; but a more satisfactory theory has been formed of them than of any of the subordinate heads, which are still arranged under the title affinity.

IV. Application.—The knowledge, that almost the whole of chemical changes may be comprehended under a few general facts, which are understood with tolerable precision, enables us to form a theory of the science: and the general knowledge which we have thus acquired we may apply to the explanation of the phænomena of nature, which constitutes certain sciences intimately connected with chemistry. These are,

1. Meteorology, or the changes which take place in the atmosphere.

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It enables us also to apply chemistry to the improvement of the numerous arts and manufactures which depend upon chemical principles; such as pharmacy, agriculture, dyeing, tanning, bleaching, brewing, metallurgy, &c. And to improve the different re-agents, which are employed in the chemical analysis of bodies, such as alkalies, acids, alcohol, salts, &c.

Such is a faint outline of the different topics comprehended under this extensive and important science, which is at present undergoing a rapid and unprecedented improvement in all its branches. Frequently as our Journal makes its appearance, we may yet venture to predict, that scarcely a single week shall pass without our announcing some new fact or discovery, to add to the store of chemical knowledge. Such is the number of philosophers who have devoted themselves to the science, and such their abilities and exertions, that the field which they have undertaken to cultivate cannot fail to produce an abundant crop; and so popular at present is the study, and so powerful the inducements to enter upon it, that new labourers will be constantly flocking to their assistance, and encreasing the produce. As a proof of our assertion we shall proceed to announce the most important of the recent discoveries in chemistry. These we shall arrange under the different heads, into which we have divided the science, observing at the same time that a precise arrangement is not always attainable in a publication like ours. For it not unfrequently happens that a chemist in a single paper makes us acquainted with facts belonging to different branches of the science, which at the same time he has connected together so closely, that they cannot be separated without cutting the essay into fritters, and destroying its unity and effect. This we shall always avoid even at the expence of arrangement.

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This mineral is composed of about 75 parts of a peculiar acid, and 25 parts of oxide of iron. The acid is composed of a peculiar metallic body, united to oxygen. To this metal, Mr. Hatchett has given the name of Columbium. The smallness of the specimen did not permit him to make many attempts to reduce this acid to the metallic state. But his experiments are sufficient to prove that it contains a metallic basis. The properties of the acid of columbium are the following.

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Such are Mr. Fourcroy's opinions respecting the different degrees of oxydation, of which mercury is susceptible. They do not materially differ from what he published several years ago, in his Systeme des connoissances Chimiques. But neither in that work nor in the Journal des Mines has he given us the experiments on which his opinions are founded. This was the more necessary, because some of our most exact chemists have lately turned their attention to the same subject, and have published results which do not agree with those given above. Mr. Chenevix in his excellent paper on the oxygenized muriatic acid has detailed his experiments on *calomel* and *corrosive sublimate*, the two mercurial salts which have been longest known and which are most employed by physicians.

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An experiment of Mr. Boullay published in the Annales de Chimie for November and December last, (Vol. 44. p. 282.) may be urged in favour of Fourcroy's opinion. One hundred parts of corrosive sublimate were mixed in a mortar, with 200 parts of charcoal, and as much water as was sufficient to reduce the mixture to the state of a paste. It was introduced into a porcelain retort, and distilled, with a low heat, to dryness. The water, which came over, was perfectly pure. The receiver was then connected with a Wolf's bottle, two thirds filled with a solution of nitrat of silver, from which a glass tube passed into a second bottle, containing lime water. The distillation was then continued with a moderate heat. When finished, he obtained 76 parts of running mercury, and 2 parts of black oxide, in the neck of the retort, 72 parts of muriat of silver, in the first bottle, and ten parts of carbonat of lime, in the second. From this he concludes that the corrosive sublimate was composed of 78 parts mercury, 4 parts oxygen, and 18 parts muriatic acid. In the proportion of acid he agrees with Chenevix, but he found the mercury only combined with 0.04 oxygen, or in the state of the black oxide of Fourcroy, a conclusion directly contrary to the experiments of every other chemist. For were it true, the mercury in corrosive sublimate would be less oxydated than in calomel, which is absurd, if we consult for a moment the processes by which these bodies are formed. But in reality the experiment of Boullay is not susceptible of accuracy, as he has himself observed. Besides, the proportion of muriat of silver which he found contains not 18 parts of muriatic acid, but only 12. He ought, therefore to have stated the component parts of the salt at 78 mercury, 12 muriatic acid, and 10 oxygen.

From Mr. Chenevix's experiments we learn that calomel is composed of 11.6 muriatic acid, and 88.5 of oxide of mercury. This last oxide contains 89.3 parts mercury, and 10.7 oxygen, or it coincides very nearly with Fourcroy's second or red oxide of mercury. Now, it is impossible to believe, that calomel contains the red oxide, for if you pour muriatic acid upon the red oxide of mercury, it dissolves that oxide (as is well known) without any effervescence; and the result is corrosive sublimate. Therefore corrosive sublimate contains the red oxide of mercury. And Chenevix and Proust have demonstrated that the oxide of mercury in corrosive sublimate contains more oxygen than the oxide in calomel. Either therefore, the determination of Chenevix is erroneous, or there exists an oxide of mercury, between the black and the red, or the black oxide contains more than four per cent. of oxygen.

LITERATURE.

PHILOSOPHY OF MIND.

WHEN we take the most general view that is possible of the human mind, we find that every thing belonging to it, may be divided into two great parts:—

I. The powers of thinking, which are generally attended with belief; and

II. The desires which prompt to action in order to accomplish some end.

The second of these divisions is the subject of that science which is called Moral Philosophy, but the first has no appropriate name. That so important a science as that which is conversant with the intellectual operations, a science which traces the sources of human knowledge and describes the instruments which are employed in acquiring it, a science too which has made very considerable progress, should still remain without a name is a remarkable, and, we believe, a singular fact. We flatter ourselves therefore that no apology will be necessary for attempting to supply the defect. Fortunately a name presents itself sufficiently expressive of the nature of the science, and of course may be considered as unexceptionable. The name is Intellectual Philosophy.

OF INTELLECTUAL PHILOSOPHY.

The object of Intellectual Philosophy is to collect, classify, and name all the important facts which relate to the intellectual part of man, in order to enable us to ascertain by what methods it can be carried to the highest degree of improvement. For we should never forget that the object of every science is utility.

We come next to give a view of the present state of intellectual philosophy. But as we can best determine its present degree of perfection by comparing it with what it was in former times, as well as with what it ought to be, we shall take a very short view of its rise and progress.

In the rude ages of society men were almost entirely engrossed with the objects of their senses; but it must soon have been discovered that the senses are the channels by which the knowledge of material objects is obtained, that colours are distinguished by the eye, sounds by the ear, smells by the nostrils, tastes by the tongue, and hardness and softness by the touch. As soon as this distinction was made, names were found necessary to mark and preserve it. We shall therefore probably find that the words which express seeing, hearing, tasting, smelling, and touch, are primitive words in all languages. But it is necessary not only to speak of perceiving sensible objects when present, it is also necessary to speak of them when absent, or to talk of having formerly perceived them. This however could be easily done without forming any new words, by merely giving a new termination to the words already invented. In this way would the present and past tenses of verbs be formed, and thus two faculties of the mind, perception and memory, could be expressed. *I see*, expresses perception; *I saw*, expresses memory. We have reason to believe too that other operations of the mind would also at first be distinguished solely by words borrowed from the senses. That this is not mere conjecture, is evident not only from the language of the common people, but even from the language of those who are better instructed. The verb *to see* is used to denote not only perception by the eye, but imagination and judgment. The word *to feel*, which originally belonged to the sense of touch, is now applied to express every emotion of the mind, every pain or pleasure with which it is affected.

But when philosophers began to investigate the various operations of mind, it was found necessary to distinguish them by names, such as memory, imagina-

tion, judgment, &c. That some considerable time elapsed before such terms were invented is probable from this circumstance, that in all the languages with which we are acquainted, these names are not primitive, but derivative or compounded; and what is worthy of notice, they are formed in different languages from analogies sometimes exactly the same, and always from circumstances that correspond in a surprizing manner. This is the case in Hebrew, in Greek, Latin and German. It is the case also in French, Italian and English, but these last, we confess, have in most cases merely transferred or borrowed the Latin terms. The Hebrew word for *memory* also signifies *smell*, and one of the words employed in the same language to express *judgment* denotes also *taste*. What is remarkable in the English (as well as in many other modern languages) is, that almost all the words applied to mind are of Latin origin, and but a few which would be necessary to rude tribes are of Saxon origin. This proves indisputably that intellectual philosophy was introduced into Europe, or at least into many countries of it, by those who wrote in Latin.

By the application of certain appropriate names to the operations of mind, a considerable improvement was made; the classification became more accurate, and the language more precise. For a long time, however, the science of intellectual philosophy was in a very imperfect state. We may mention as a proof of this Lord Bacon's English works. Every man who is acquainted with the Latin productions of that illustrious man, must know well that he was possessed of a mind fitted in the highest degree for accurate classification, and consequently well qualified to express the distinctions which he had occasion to make with the utmost precision of which the language would admit. It is a fortunate circumstance, however, that his most valuable works are in Latin; for at that period the English language could not have furnished him with words to convey his meaning with any degree of precision. We are indebted to Mr. Locke for the first analysis of the mind; and though he lived till 78 years after the death of Lord Bacon, yet at the time in which he wrote, the language applied to mind was very indefinite. Dr. Barrow's sermons illustrate this assertion; although they display a wonderful comprehensiveness of mind, a richness of imagination, and a splendor of diction which would do honour to any age. Mr. Locke had therefore very great difficulties to struggle with when he began his Essay on the Human Understanding. Indeed he himself informs us, that the first thing which turned his attention to this important science was a dispute, which was solely occasioned by the vagueness of the terms in which the subject was stated. Mr. Locke had not only to analyze the operations of the mind, but he had in a great measure to model the language anew. This he did, not by introducing foreign words or coining new ones, but by giving precision to the words already in use. No man, however, could perform such a task as this without falling into mistakes; for though possessed of the greatest acuteness, and though labouring with the utmost caution, he could not disjoin all the associations which he had already formed. While we mention some of the errors therefore of this extraordinary man: we do not mean to detract from his merit. The word idea which so often occurs in his essay, he employs sometimes to denote a thought or notion, sometimes an external object, and sometimes the picture of an external object. We think too that he uses the word *knowledge* to signify a faculty or operation of the mind. Let us not, however, forget that it is what Mr. Locke himself has done which enables us now to detect his errors. His comprehensive mind led him at once to discover the nature, extent and boundaries of intellectual philosophy. His object was to point out the origin of our knowledge, the evidence on which it ought to rest, and the subjects to which it is limited. Respecting the origin of our knowledge, he made one important, though to us it may appear an obvious distinction; he traced it all to two sources, Sensation and Reflection. Mr. Locke has been much censured for the inaccuracy of the distinction, by those very men who have been educated at the feet of this great master of reasoning. But the errors and absurdities, which have been spun out of his system by succeeding philosophers, ought not to be charged upon him. His distinction is just, and must have preceded every attempt at greater accuracy.

What Mr. Locke arranged under the two great divisions of Sensation and Reflection, has lately been subdivided under a variety of more particular heads. This improvement as far as we know was made by the late Dr. Reid of Glasgow. It consisted in classing what has been called the faculties of the mind, and in arranging the different notions or ideas under their respective faculty. This philosopher was possessed of great acuteness and examined the doctrines of others with rigid caution. He removed all the rubbish which had been accumulating from the days of Aristotle, and which began to threaten to bury intellectual philosophy for ever. He demolished the ideal theory, as it has been called, which consisted of a superstructure of absurdities raised upon a mere chimera. It had been a received maxim that nothing can act where it is not, and therefore it was concluded that the mind cannot perceive any thing which is not within itself. External objects therefore it was supposed, must either send to the mind images of themselves, as a mirror reflects the images of objects placed before it, or the mind must leave the body and go into contact with every object it perceives. Lord Monboddo, among late authors, adopted the latter opinion; but the generality of philosophers adhered to the former. It is strange that it seems never to have occurred to any of them, that either of these suppositions is much more unintelligible than the opinion of the common people, that the mind can directly perceive what is at a distance. It was this theory which led Bishop Berkeley, who was both a pious and enlightened philosopher, to attempt to prove that there is no material world. The same theory led Mr. Hume to the conclusion, that there is no such thing as mind. The generality of men were confounded by those conclusions, though no man in his senses, we presume, ever acted upon either of these supposed demonstrations. Absurd as they evidently were, it was found impossible to disprove them while the principles of the ideal theory were admitted

as true. But Dr. Reid with one touch of his philosophical rod made all these fanciful images disappear, and brought the material world and the mind of man again into existence.

He first examined the knowledge which we receive from the five senses, and attacked with good-natured humour and well-directed ridicule those philosophers who said that there is no heat in the fire, no smell in a rose, no colours in the rainbow. He dispelled all this mysterious absurdity, by showing that philosophers employed the words heat, and smell, and colour, to express sensations or feelings in the mind, and not as they are used in common life to signify an unknown something in bodies which occasions these sensations.

After enumerating many of the notions obtained by the senses, and distinguishing sensation from perception, Dr. Reid proceeded to distinguish and analyze the knowledge obtained by the intellectual powers. These he distinguished by the names

Perception	Abstraction
Consciousness	Judgment
Memory	Reasoning
Conception	Taste
	Moral Perception.

Under each of these heads he has added a great many valuable facts, and made many important distinctions. To this list of Dr. Reid's, we shall beg leave to add the word *Imagination*. We shall now consider what improvements have been made upon each of these subdivisions by those philosophers who have written on the subject.

As to Perception, Dr. Reid affirms that it comprehends three things:—1. A notion of the object perceived. 2. A belief of its present existence. 3. That this belief is not the effect of reasoning.

By our senses, two kinds of qualities are discoverable in bodies: the primary, such as extension, figure, motion, solidity; and the secondary, such as sounds, colours, tastes, smell, and heat. Some of those however, considered as secondary qualities, such as heat and light are now proved to be bodies.

Consciousness, is that quality of mind by which we become acquainted with the operations of our mind. As the attributes of body are denoted by adjectives, those of mind are generally denoted by verbs. Body is hot or cold, extended, hard, &c. Mind, perceives, remembers, feels, imagines, and judges. We apply verbs to matter too, but only by analogy.

Perhaps no operation of the Mind has been so fully and successfully investigated as Memory. It is indeed the easiest to examine. The circumstances which aid the memory have been enumerated, and the rules for improving it distinctly stated. But there is another particular connected with the subject, and deserving more attention than we have hitherto seen bestowed upon it; we mean the rules to be observed in the composition of books and discourses, which would be most effectual for aiding the memory. We mean here something different from logical arrangement. A book may be logically arranged, and yet not such as easily to lay hold of the memory. A number of rules respecting the selection of materials, respecting that important point whether an author ought to begin with the most general propositions, or with particular facts, and various other circumstances, remain to be laid down, which would greatly improve the art of criticism, and be of singular advantage to readers and hearers.

Perhaps few words in the English language were for a long time used in a looser sense than the word *Imagination*. Mr. Addison wrote some beautiful papers in the Spectator, which he entitled The Pleasures of Imagination. Dr. Akenside adopted the same phrase as a name for his Poem. Under the title *Pleasures of Imagination*, Mr. Addison comprehends the emotions which we feel upon viewing beautiful landscapes, pictures, statues, and magnificent buildings; 2dly, The emotions which are felt by the poet, when the new combinations of imagery which he has formed pass in their full beauty before his enraptured eyes:—"When he gives to airy nothing a local habitation and a name." 3dly. Under the same name he also comprehends the pleasure which the reader of a poem feels when he peruses some beautiful or sublime description, and the pleasures which we feel when we run over in our minds those trains of images which formerly delighted and transported us. To employ the word Imagination in such a variety of senses, would have entirely prevented that precision which is necessary in investigating those operations of the mind to which that word was loosely applied. The distinctions which have been lately introduced in this subject, we consider as a very important improvement. The pleasures of imagination are now more properly called the *Emotions of Beauty and Sublimity*, and the power of the mind by which we judge of those is called *Taste*. The reader when he feels the emotions which the works of the poet produces, is said to exercise the faculty of *Conception*. The poet, again, when he combines into new forms the images which he received by his senses, or the sentiments which he has derived from consciousness, is said to *imagine*.

Conception is defined that power of the mind which enables it to form a notion of an absent object of perception, or of a sensation which it has formerly felt. The distinction between Conception and Imagination was first made as far as we know, by Professor Stewart of Edinburgh; and therefore to that elegant author we think this science is much indebted. We are much better pleased with the definition than we are with the notion which Mr. Stewart has endeavoured to establish, that Conception is attended with momentary belief of the existence of its object. On this subject several observations might be advanced, if this were a proper place to introduce them. To the faculty of conception the poet and painter are indebted for the clearness and vividness of their descriptions and representations when they copy from nature. To it are we indebted for the pleasure we receive from the beautiful, pathetic, and animated descriptions of the historian, and for the emotions raised in us by the eloquence of the orator, which flashes in our eyes, thunders in our ears, and agitates and overpowers the whole man. It implies no inventive genius; it denotes only that power by which we paint in our minds the ideas which we had already attained, or the inventions made by others.

"The province of Imagination," says Mr. Stewart, "is to make a selection of qualities and of circumstances, from a variety of different objects, and by combining and disposing these to form a new creation of its own." (p. 475.) Imagination is the faculty by which the poet and musician display the beauties of their art, by which the mathematician discovers new relations in the figures which he employs, and the philosopher forms those hypotheses which are afterwards by observation and experiment demonstrated to be the laws of nature. Every new combination of ideas, whether formed by the wit, the politician, the general, or the man of common life, is now considered as an effort of imagination. It is a complex power, including Conception, Abstraction, and Judgment, or Taste. This operation of the mind has been analyzed with great accuracy by Mr. Stewart. He has shown the relation which it bears to the fine arts, the relation which it holds to genius, and its influence on human happiness and human character. He has painted in animated colours the evils arising from an ill-regulated imagination, and the important uses to which imagination is subservient.

The principle of association which links our thoughts together, and determines them to flow in a certain train, has been examined with much attention. To a man capable of taking even the most superficial view of the operations of the human mind, the thoughts appear to flow in a constant uninterrupted stream, though with very different degrees of force and velocity; sometimes gently and slowly like a rill trickling through the grass, sometimes like a smooth stream meandering through flowers and trees, and cultivated fields, and sometimes with the rapidity and violence of a river swollen by a flood, and overthrowing all things that come in its way. Seldom, however, do the thoughts continue to flow long at one time in the same channel. They seem to open to themselves innumerable courses, through which they move at pleasure. It would seem therefore, as difficult to discover the circumstances which determine their direction, as to explore the changes and movements of the wind, or to explain the causes that effect the weather. Yet difficult as it may appear to be, to trace the current of thought through all its mazes, and to discover the circumstances that quicken, retard, or alter its course, this has been done with wonderful ingenuity and success. It has been found, that our thoughts may be considered as a train of individuals, each of which has a tendency to produce certain other thoughts, and these again other thoughts, in an endless course. As every thing in nature has a relation to other things, so every thought of the mind has a relation to other thoughts. Many of these relations have been enumerated, and happily illustrated from the trains of thought pursued by the poet, the philosopher, and historian. They have been observed in the flashes of the wit, the eloquence of the orator, and traced in ordinary conversation. This part of our intellectual constitution is called the association of ideas. It has been found to have a most astonishing influence in forming the infant mind, in determining the character of nations and individuals. It affects our opinions, our judgment, our taste. It influences our religion and virtue, and determines in a considerable degree our happiness in the world. Miss Hamilton, in a valuable Treatise which she has lately published on education, has shewn with much good sense and happy illustration, how necessary it is for those who have the care of children, to watch over the associating principle with a vigilant eye.

The next faculty of the mind which we intend to mention has given occasion to volumes of controversy, nor are philosophers yet agreed respecting the speculations to which it leads. This faculty is Abstraction, and has been defined to be the power of considering certain qualities, or attributes of an object, apart from the rest; or the power, which the understanding, has of separating the combinations which are presented to it. On this subject we have met with few writings which we can understand. There is a want of precision of language in Dr. Reid's Essay on Abstraction, of which we have seldom cause to complain in the works of that great and accurate philosopher. A dispute has long existed with regard to this faculty, whether in using general words, as Mountain, Church, Man, Animal, our minds can form notions or ideas corresponding to these, or whether, when we employ such words we employ them only as we do algebraic symbols, without attending to their meaning. This dispute which is now carried on in the closet, or philosopher's chair only, had become so important in the 14th century, that several of the sovereigns of Europe arranged themselves as champions on either side. The advocates for general ideas were called Realists; those who considered general words merely as signs of which the relations were known, were called Nominalists. And never were any two parties, in church or state, actuated by greater zeal and animosity. They threatened, they ridiculed, they reproached and assailed one another with the utmost rage. They attacked with their teeth, kicked with their feet, and wounded one another with clubs; and some died of their wounds. The questions connected with this faculty have not yet been satisfactorily investigated. It is one of the many subjects in the discussion of which the imperfection of language, as an instrument of thought, most frequently presents itself to our minds as an object of regret.

As to the faculty of judgment, it is not a little remarkable, that it is not yet settled by philosophers, what it is. Dr. Reid and others make it to consist in a mental affirmation; while another set of philosophers say, it is "that power by which we discern the relations between our thoughts or the objects of which we think." If we take Dr. Reid's definition we must make judgment an ingredient in every operation of the mind. When we enquire what is meant by mental affirmation, we acknowledge ourselves unable to distinguish it from belief. If it be the same with belief, we are very ready to own that belief in some sense or other must attend all the operations of the mind. But why the words *belief* and *judgment* should be considered as synonimous, we should wish to know a reason. Judgment, according to the second definition which we mentioned, requires the formation of two ideas, a comparison and a conclusion; but belief may be produced where there is no comparison

When I say I perceive a tree, does not the word *perceive* convey to every hearer these propositions: By my eyes I receive a notion of a tree, and I believe that the tree exists and is present. Belief then we consider not as a concomitant, but as an ingredient in the operations of perception, of consciousness, of memory, nay even of judgment itself. We must, however, add, that we do not deny that these operations may be followed by a judgment. For instance, I know that the tree which I perceive exists independent of my perceiving it. This is an act of judgment founded upon experience, or upon a comparison between perception and memory. This faculty of the mind has not, in our opinion, been by any means sufficiently examined. Much is yet wanting to its elucidation.

Taste, is that power of the mind by which we are capable of discerning and relishing the beauties of nature and art. Though it is not long ago that this name became appropriate, yet the subjects of this faculty have been under examination since the art of criticism commenced. In the subjects relating to taste considered as an art, we cannot expect any thing very new or important. But the scientific principles have not yet been fully examined. A book upon this subject is still much wanted. We do not see the propriety of considering the principles of Taste as consisting of a variety of internal or reflex senses, as Dr. Gerard has done. He has made seven of these, a sense of novelty, of sublimity, of beauty, of imitation, of harmony, of ridicule, and of virtue. He might easily have encreased the number, but we do not see what benefit could arise to intellectual philosophy from this division. The objects of these seven senses are all different, but the operation is in most of them the same. Dr. Reid has arranged the objects of Taste as Mr. Addison had done before, under Novelty, Grandeur and Beauty. This is a more simple, and a more useful division. Mr. Alison has written a very beautiful and fascinating work some years ago on the subject of Taste. We regret much he has not completed his plan: for though we have some scruples with regard to his theory, yet we highly value his work, and wait with expectation for the remaining volume.

The last of the intellectual powers which we shall mention at present, is the Moral Sense, Moral Faculty, or Conscience. And here we cannot help expressing our astonishment, that it should still be a dispute among pious, virtuous, and enlightened divines, as well as philosophers, whether there be such an original principle. We confess that we should not be more surprized, were we to meet with men who deny that memory and judgment are original principles. Nor have we found our belief much staggered by all which we have found in books upon the subject. It has been said the moral faculty is not uniform in all men, and therefore its existence is denied. We reply neither is memory nor judgment. It is objected that the same actions are reckoned moral by one nation, and immoral by another. But we must recollect that actions are ambiguous; we do not find that the same motives and intentions are approved of by one nation, and disapproved of by another. In no nation was the love of parents, benevolence, gratitude or justice condemned, and the opposite vices applauded. Those who deny that there is a moral faculty, resolve it into a sense of utility. But this is a principle the most dangerous, in its effects that ever was admitted into philosophy or politics. We cannot at present enter into the merits of this important subject, nor do we mean to insinuate any thing against the good intentions of many of those who have adopted this doctrine. But we think it right to state our opinion, that by real, logical conclusions, it subverts all principle, both religious and moral.

By the operation of the moral faculty, we receive the ideas of right and wrong, merit and demerit.

We do not know any author except Dr. Reid, who classes the Moral Faculty among the intellectual powers. It is not merely a principle of action; it is also a principle by the operation of which a new class of ideas is introduced into the mind. It is therefore an intellectual power.

We have now shown what has been done in this science, respecting the classification and analysis of the intellectual powers. The second branch of this science, is the use to which they are to be directed, and the best methods of applying them so as to accomplish their ends. The use to which they ought to be applied is in general the acquisition of knowledge or the discovery of truth; and the effects of the right application, the discovery of the means which tend to promote the virtue and happiness of mankind.

As to the best method of attaining knowledge; that consists in collecting facts, arranging them, and drawing general conclusions from them. An important requisite, however, is that we should be well acquainted with the evidence on which we ought to receive different kinds of facts. This is a subject of the utmost importance to the divine, the lawyer, the physician, in short not only to the philospher, but to men in every station. Almost the only author who has paid any attention to this subject is Dr. Campbell, of Aberdeen, in his book entitled, The Philosophy of Rhetoric. He has divided the different kinds of evidence into two parts, Intuitive and Deductive. Intuitive evidence he has subdivided into three parts, Mathematical axioms, Consciousness and Common Sense. Deductive evidence he has made of four kinds, Experience, Analogy, Testimony, and Calculation of Chances. We would propose a different method of arranging these different kinds of evidence. 1. Evidence of things present, Consciousness and Perception. 2. Evidence of things past, Memory and Testimony. 3. Evidence of things future, Experience and Analogy. 4. Evidence of necessary truths which have no relation to time, Intellection and Common Sense. We do not like this use of the word common sense; we would prefer the name instinctive evidence, or the evidence of suggestion. A good book upon evidence would be a valuable present to the world.

After our knowledge is acquired, examined, and found supported by sufficient evidence, it is necessary to communicate it to others. It must therefore be arranged, so as to be easily understood, listened to, or read, with pleasure, and so as to make as deep an impression as possible upon the memory. If we wish

to persuade, we must also address those passions that favour our purpose. Upon this subject much has been written with great ability, and clothed in all the charms of oratory. But in the arrangement of many compositions, we do not think sufficient attention has been paid to the memory.

To the science of intellectual philosophy it belongs also to explain the method of deducing general conclusions from particular facts. This is called Induction, and was first taught by Lord Bacon. His rules are excellent, and his illustrations happy. As science has made astonishing progress since the time of that enlightened philosopher, it is much to be wished that we had a view of the principles of induction published by itself, accommodated to the present state of the sciences. If this were attempted by a man of a clear and sound understanding, some improvements might be added, and undoubtedly just notions of induction might be more widely diffused. In some of the sciences it has been in a great measure neglected Even in practical subjects, as in the business of a physician for example, it would be of much consequence to understand thoroughly the method of induction.

But the science of intellectual philosophy must be very incomplete, unless it be directed to language for language is the medium by which thought is conveyed from one mind to another, and the record by which knowledge of every kind is preserved. The medium of thought ought to be made as pure and transparent as possible. It naturally belongs to the intellectual philosopher, whose business it is to analyze and classify the thoughts and operations of the mind, to examine, correct and improve, the medium of thought, and to give such rules as may tend to render it as fit as possible for answering its use. It is the province therefore of this science to trace the progress of language, to attend to the classes into which words are distributed, and to lay down rules by which the meaning of every word may be ascertained with precision. Rules for composing a dictionary ought to be given by the intellectual philosopher; for no dictionary has yet appeared so precise and clear in its definitions as to answer completely the purpose of such a work. Till a work of this kind can be composed, it would be of great benefit if every philosopher who directs his enquiries to the mind, would add, by way of appendix to his work, a small dictionary of such terms as occur most frequently in his essays or discourses.

We will now hazard some remarks respecting the usual classification of the attributes of mind, and will venture to mention what we consider as an improvement.

The human mind has been considered as a substance possessing a great many powers or faculties, which are said to act, and even to act on one another. We talk of an act of the judgment, and of perception or an act of perception being corrected by an act of judgment. And while we talk in this manner, we think we are speaking good sense. But surely nothing can act but a being. Now neither perception nor judgment are beings, and therefore cannot act, they are only qualities or attributes of an active substance. Were we to hear any one speak of the act of a quality, or of an attribute, we should probably discover that the words have no meaning. To arrange actions under powers is not philosophical; power is not a genus nor species of action, but action is the effect of an agent. Now when we attend to our minds, we are conscious that we sometimes perceive external objects by the senses, sometimes call to mind past events, sometimes compare, and sometimes amuse ourselves with fancied scenes. These are evidently different species of actions or operations, but they are not different species of powers. The mind has indeed the power of performing different operations. But how absurd would it appear to class the actions which the body can perform, under the words powers and faculties, to say we have the faculty of walking, the faculty of sleeping, the faculty of eating, of digesting, of speaking, &c.? Yet this would not be more exceptionable or more useless, than to speak of the faculties of the mind. Besides, it is not the faculties with which we are concerned, it is the operations that are the objects of our attention. We say therefore, that the words powers and faculties are superfluous. They darken and perplex the subject. They make us suppose that the mind is divided into parts or active beings, which act independent of one another. They form a kind of painted screen between the mind and its operations. It is the mind and its operations with which we are concerned, and these ought never to be separated. On the supposition then that it would be an improvement to banish these words from this science entirely, we think very great benefits would immediately arise. We shall find that every operation is a whole, that it has a beginning and end, which may indeed be marked imperfectly by words, but cannot be separated in our mind when it becomes an object of thought. We shall also probably find that there are several operations which have not yet been distinguished, nor have received names; we are sure at least, that there are many notions or ideas which have not yet been traced to any operation of the mind.

We cannot help thinking, that sufficient attention has not been paid in systems of intellectual philosophy to the methods of teaching men how they may learn to perform all the operations of mind with the greatest energy and advantage. Many valuable remarks on the education of the young mind, which do great honour to the authors, may be found in the books on Education, by the Edgeworths and Miss Hamilton.

It is a piece of intelligence connected with the subject treated in this article, that a translation is just announced in France of Mr. Burke's Enquiry into the Origin of our ideas of the Sublime, and Beautiful, accompanied with a short account of the Life of the Author, by E. Le Gentie de la Vaisse.

ODE FOR THE NEW YEAR.

BY H. J. PYE, ESQ. POET LAUREAT.

THOUGH the tempestuous winds no more
The main with angry pinions sweep,
Though raging 'gainst the sounding shore
No longer howl the impetuous seas;

But soothed to rest, the billows sleep,
Save where soft Zephyr's tepid breeze
Fans with its silken wing the rippling deep;
Yet still with unremitting eye
The pilot marks the uncertain sky,
The seaman watches still the gale,
Prompt on to spread or furl the sail,
Mindful of many a danger past,
Tost by the turbid wave, check'd by the adverse blast.

Not keen Suspicion's jealous glance,
Not fierce Contention's feverish rage,
Shall bid Britannia point the lance
New realms to grasp, new wars to wage.
In conscious rectitude elate,
In conscious power securely great,
While she beholds the dangerous tide
Of Battle's crimson wave subside,
Though firm she stands in act to dare
The storms of renovated war,
Her ready sword, her lifted shield,
Provoke not the ensanguin'd field,
More than the wary pilot's cautions urge
The wind's tempestuous strife, or swell the foaming surge.

O from our shores be exiled far
Ambition's wild and restless crew,
Who through the bleeding paths of war
False Glory's damon-form pursue,
Whose burning thirst, still unsubdued
By deluges of guiltless blood,
Glares on the regions round with fiend-like eyes,
While scarce a vanquish'd world its wish supplies;
Yet ne'er may Sloth's inglorious charm
Unnerve the manly Briton's arm,
Nor Sophistry's insidious art
E'er lull the manly Briton's heart.
May Peace, with Plenty by her side,
Long, long o'er Albion's fields preside;
Long may her breath, with placid gale,
Of Commerce swell the happy sail;
But roused in Justice' sacred cause,
Insulted rights or violated laws,
Still may her sons with fierce delight
Flame in the gleamy van of fight,
Spread o'er the tented plain, or brave
With warlike prow the hostile wave;
And on each firm ingenuous breast
Be this eternal truth impress'd,
Peace only sheds perennial joys on those
Who guard with dauntless arm the blessings Peace bestows.

MANNERS.

IN the comparison of ancient manners with modern, nothing is more remarkable than a species of *degeneracy* in certain characters which were not entitled to respect, even when they flourished in the *highest perfection*. It seems laughable to hear an old man lament, that rakes are nothing now-a-days to what he remembers them, and that free-living and debauchery are greatly changed for the worse, that bucks and bloods have lost all spirit, and that there was a time when they would not have suffered their pleasures to be interrupted by the staff of a constable, or the mittimus of a justice. But that characters which in their prime were not of the laudable sort, may really become more useless or offensive, more indecorous and unsocial, will perhaps appear obvious when illustrated by an example, which for the present speculation, shall be taken from a class of obtrusive beings, more general, and more notorious than perhaps any other, and at the same time of more consequence to the present generation — We mean the *English Puppy*.

If we search into our records of manners for the early history of this animal, we find it was not much known above seventy or eighty years ago. Previous to that time, its name can rarely be found in the annals of ridicule or contempt. It must not, however, upon that account, be supposed a new creation, or that a class of young men dropped from the clouds suddenly, or were made puppies by their parents in consequence of some original and unheard-of invention; still less are we authorized to suppose that they were imported from abroad, although it must be confessed that travelling has often the appearance of encreasing the breed. It seems more probable, and more consistent with historical fact, that the puppy of modern times, is a modification of the ancient *beau, fop*, or *fine gentleman*. Why these characters were discontinued, and the puppy substituted, is a question which may be answered, when it shall be determined why other alterations in fashion are perpetually taking place. Our speculations are at an end, if we are to be interrupted by the importunity of those who will have a *reason* for every phenomenon, and therefore whoever studies, or copies, or is pleased with the revolutions of fashion, must, like Dr. Johnson, "hate your *Cui bono?* men."

The history of manners is not like that of nations: it cannot be traced to very remote antiquity; all that is known of manners can reach no higher than perhaps two centuries in any nation: beyond that we meet with barbarous and uncouth customs of universal extent among a people, but nothing which can be considered as deserving the name *manners*, either in a good or bad sense. It is in the age of refinement, produced by the diffusion of riches, and of luxury tempered and corrected in some degree by education, that we are to look for that variety of behaviour, that polish, or prominency of conduct in little things which constitute the manners that are to be studied, and followed or avoided according to the distinctions of rank. If, agreeably to the general opinion, we allow that the present age is refined; we surely cannot trace that refinement beyond a century. We cannot, for instance, look for refinement in the licentious court, and more licentious theatre of the time of Charles II. The revolution of 1688 appears to have been a revolution in every thing.

But to return to our more immediate subject.—In Queen Anne's time, we may gather from the records of manners which then were pretty copious, that the beau, the fop, and the fine gentleman were common and well distinguished characters. They are frequently mentioned as such by the Essayists; and in other works we find frequent allusions to them. The character of a beau we shall now transcribe from a scarce

work published a little before the period just mentioned, namely in 1697; the author of which we have not been able to discover, but as the copy before us is the third edition, it was probably at that time a work of some fame and authority. Our readers will soon perceive that this extract although somewhat longer than we wish to give in these speculations, is very necessary to throw historical light on the origin of our modern puppy.

"The Beau," says this author, "is one that has more learning in his heels than in his head, which is better covered than filled. His taylor and his barber are his cabinet council, to whom he is more beholden for what he is, than to his Maker. He is one that has travelled to see fashions, and brought over with him the newest-cut suit, and the prettiest-fancied rib-bands for sword-knots. His best acquaintance at Paris was his dancing-master, whom he calls the Marquis, and his chief visits, to the opera. He has seen the French king once, and knows the name of his chief minister, and is by this sufficiently convinced, that there are no politicians in any other part of the world. His improvements are a nice skill in the mode, and a high contempt of his own country, and of sense. All the knowledge he has of the country, or manners of it, is in the keeping of the valet that followed him thither, and all that he retains of the language is a few modish words to lard his discourse with, and show his breeding, and the names of his garniture. He should be a philosopher, for he studies nothing but himself, yet every one knows him better that thinks him not worth knowing. His looks and gestures are his constant lesson, and his glass is the oracle that resolves all his mighty doubts and scruples. He examines and refreshes his complexion by it, and is more dejected at a pimple, than if it were a cancer. When his eyes are set to a languishing air, his motions all prepared according to art, his wig and coat abundantly powdered, his gloves essenced, and his handkerchief perfumed, and all the rest of his bravery right adjusted, the greater part of the day, as well as the business of it at home, is over: it is time to launch, and down he comes, scented like a perfumer's shop, and looks like a vessel with all her rigging under sail without ballast. A chair is brought within the door, for he apprehends every breath of air as much, as if it were a hurricane. His first visit is to the chocolate-house, and after a quarter of an hour's compliment to himself in a great glass, he faces about and salutes the company, and puts in practice his morning's meditations: When he has made his cringes round, and played over all his tricks, out comes the fine snush *(snuff)* box, and his nose is regaled a while. After this he begins to open, and starts some learned argument about the newest fashion, and hence takes occasion to commend the next man's fancy in his cloaths; this, ushers in a discourse of the appearance last birth-night, or ball at Court, and so a critique upon this Lord, or that Lady's masquing habit. From hence he adjourns to a play-house, where he is to be met again in the side-box, from whence he makes his court to all the ladies in general with his eyes, and is particular only with the orange-wench. After a while he engages some neighbouring vizor (*mask*) and together they run over all the boxes, take to pieces every face, examine every feature, pass their censure upon every one, and so on to their dress; here he very judiciously gives his opinion upon every particular, and determines whose colours are well chosen, whose fancy is neatest, and whose cloaths sit with most air, but in conclusion sees nobody complete but himself, in the whole house. After this he looks down with contempt upon the pit, and rallies all the slovenly fellows, and awkward beaus (as he calls them) of t'other end of the town, is mightily offended at their ill-scented snush, and in spite of all his pulvilio and essences, is overcome with the stink of their Cordovan gloves.

"His next stage is Locket's, where his vanity, not his stomach, is to be gratified with something that is little and dear. Quails and Ortolans, are the meanest of his diet, and a spoonful of green peas at Christmas are worth to him more than the inheritance of the field where they grow in summer. Every thing falls in his esteem, as it falls in price, and he would not so much as taste the wine, if the hard name, and the high rate did not give it a relish. After a glass or two, (for a pint is his stint) he begins to talk of his intrigues, boasts much of the favours he has received, shows counterfeit tokens, and in conclusion slanders some lady or other, of unquestioned virtue, with a particular fondness for him. His amours are all profound secrets, yet he makes a confidence of them to every man he meets with. He pretends a great reverence for the ladies, and a mighty tenderness of their reputations; yet he is like a *flesh-flye*, whatever he blows on is tainted. He talks of nothing under quality, though he never obtained a favour which his man might not have had for half a crown. He and his footman in this case are like the English and Dutch at an ordinary in Holland, the fare is the same, but the price is vastly different. Thus the show goes forward, till he is beaten for trespasses he was never guilty of, and shall be damned for sins he never committed. At last, with his credit as low as his fortune, he retires sullenly to his cloister, the King's-Bench, or Fleet, and passes the rest of his days in privacy, and contemplation."

It cannot, we presume, be denied that this antique beau is the prototype of the modern puppy, but time, which changes all things, has effaced some of the characteristics, and substituted others; and it must now be our endeavour to point out the most striking differences. And first, in general we may observe that the old beau, from his visits to court, and his dress, presupposed the possession of riches; in that respect he bore some resemblance to our modern young men of fashion, a class not unlike the puppies in some features: a young man of fashion may be a puppy, but puppyism as we now find it does not necessarily imply either rank or riches, and the majority, the great majority of our town-made puppies are without either.

Secondly, it may be observed that the services of the barber, so essential to the old beaus, who wore wigs, which cost from thirty to fifty guineas each, are now dispensed with, and this *trait* of puppyism is so recent in its origin as to be within the remembrance

of most of our readers. Their hair is generally cropped close to the head, and they use no powder. This resolution was partly political and partly economical: the early fomenters of rebellion in France affected a republican slovenliness of dress; this was consequently followed by those who were of the same, or nearly the same principles, but perhaps would not have become general, had not the parliament, in an evil hour, ordained that every man who chose to wear hair powder should pay a guinea. This was opportunely laid hold of to unite economy with political sentiment, and the puppies, to whom a guinea is of more consequence than either a republic or a monarchy, readily embraced the opportunity of saving the expences of a frizeur, and at the same time appearing like men whose heads were much affected by the state of affairs in Europe.

With respect to sword-knots, that characteristic disappeared about fifty years ago, when swords ceased to be worn as a part of dress, or rather when dress began to depart farther and farther from what is now called full-dress, which, we need scarcely tell our readers, is now chiefly confined to the court at St. James's, or sometimes to the opera, or to balls where it is expressly so ordered.

Travelling, likewise, as it implies riches, is no longer a part of the requisite duties of a modern puppy, we mean, travelling to the Continent, for within our own dominions, occasional trips to what are called the watering places, are indispensably necessary, and must be performed at least once a year, unless there be no possibility of raising the supplies within the year, or of anticipating the revenue by a loan, which, we are informed, is the most common practice, and gives an air of credit which is highly encouraging. This confinement, however, of our general mass of puppies, within the bounds of Great Britain, makes the manufacture of them entirely our own. They may now and then pick up a little improvement at second-hand from foreign nations, but the ground-work is aboriginal.

With regard to the *scents* mentioned in the above account of the antique beau, as it is a subject not very closely connected with delicacy, we shall dismiss it, with observing that perfumes are in general use yet with the modern puppy, who is curious in these articles, and in his lip-salves, the whitening of his teeth, the delicacy of his complexion, and other articles which are supposed to render the care of the inside less a matter of importance Nor is this attention to perfumes mentioned here with disapprobation. Whatever we may think of luxuries, we hope we shall never be found so fastidious as to object to necessaries, or to imagine that in securing the comforts of society, the functions of any one sense are to be neglected.—It may be remarked under this head, that snuff is no longer a characteristic of the descendants of the ancient beaus. At what time it disappeared is not very evident, but as in persons of weak heads, it is said to create giddiness, it would in a modern puppy be accounted a superfluity. It appears how to be confined, in a great measure, to authors during their lucubrations, and to public speakers during their orations in the senate, the pulpit, or at the bar; and hence, we believe, arose the frequent misfortune of "being at a pinch."

Such, it is apprehended, are the chief practices of the ancient beau which have not descended with his general character to the modern puppy. In other matters the resemblance is sufficiently strong to mark the parent stock. The principal alterations we take to be in the dress, which now differs from every thing upon record, particularly in the disuse of linen, cambric, shoes, and stockings, and more particularly yet in the partnership formed with a horse. The whole conversation of one of this class turns on his horse, if he possess one, or the horse he has borrowed or hired. Listen to the conversation of a party of them, and you would suppose it was a convention of stable-keepers or postillions. It may be added, likewise, that they have been furnished with a vast fund of ingenious and entertaining remarks on the varieties lately introduced in the manufacture of boots. This is an article which we do not find in the catalogue of the wardrobe given in the Tatler N°. 113, (to which we beg leave to refer our reader) but is now an indispensable requisite.

The understanding and the amusements of the modern puppy are not essentially different from that of the ancient beau. The knowledge they possess is chiefly confined to the horse, and the boots; nor is it of the superficial kind; for after listening to their dissertations upon these subjects, you are puzzled to know whether nature and education have qualified them most to excell as post-boys, or to shine as shoe-blacks. Their chief resort is the theatres, where they sit, or move about, with an inattention to the business of the stage which is highly characteristic, and which, we perceive above, is part of their inheritance from the ancient beau. The respectable part of the audience make frequent complaints of their conduct, but we must suppose that managers have not the power to sort their customers. That they should not profit by the refined manners which stage-performances are supposed to teach has been with some a matter of surprize, but the probability is that the stage will teach good behaviour to the puppies, about the same time that it teaches chastity to their favourite companions.

The modern puppies, although extremely numerous, and as common in the city as in the west end of the town, are by no means long-lived. Their race is generally run from twenty to thirty years; the latter period may, indeed, be reckoned old age, and there are few instances of such longevity. My author above quoted mentions the beaus ending their days in the Bench or Fleet; some of our puppies are observed to do the same; but a few lately have preferred another prison, chiefly, we presume, because they can there enjoy that valuable privilege, a trial by jury, and because this has sometimes procured them that newspaper fame and notoriety which they in vain attempted by all the other actions of their lives.—On some future occasion, we may take into consideration the causes of the increase of puppyism and the probable means of diminishing, or perhaps extirpating the breed.

R. S.

POLITICS.

THERE is one difference, between the present state of Europe, and its state at the commencement of the 18th century, on which many consequences depend. At that period the progress, which had been made in civilization and industry, was, in a great measure, confined to two or three of the nations; while the rest continued as poor, and as inactive, as they all were, a few ages before. Now, on the other hand, improvement has gained an entrance into every country in Europe, and has made considerable advances, even in those places, where the most numerous obstructions were opposed to it.

At the period we have mentioned, the commercial states of Italy, Venice, and Genoa, which began the work of industry in Europe, and made very respectable progress in those advantages which it confers, had, by the growing vices of their governments, descended far in the scale of prosperity: and Holland, Great Britain, and France, in reality, divided among them, not only the business of exchanging between nation and nation the commodities, which form the materials of commerce; but the whole of that agricultural, and manufacturing skill, and industry, which alone furnish any commodities to exchange. Hamburgh, and one or two more of the few cities of Germany, acquired some wealth, by serving as places of deposit, and transmission to the goods of other nations; but neither became manufacturing towns themselves nor possessed territory to become rich by the improvement of the land.

Let us take a rapid survey of the altered state of things, in this respect, in this changeable quarter of the globe.

The force, with which Germany opposed the entrance of improvement, has been a peculiar misfortune to Europe, and the cause that she herself gradually sunk, for several ages, in weight and influence among the other nations. Situated in the very heart of Europe, comprehending an enormous territory, by the variety of its soil and climate susceptible of every species of agriculture, bordering with almost all the states belonging to this quarter of the globe, open to commerce by the Baltic sea on the north, and by the German ocean on the west, intersected in all directions by the largest rivers in Europe, Germany would appear to have been destined to be the birth place of improvement, from which, as a centre, it would have passed with peculiar ease and rapidity to every part of the circumference. Enjoying a population, computed at 36 millions, when France was estimated to contain only 20 millions of inhabitants, Germany ought to have been the umpire of Europe, the great, central, pre-eminent power, which consolidated the general confederacy, with power to overawe the turbulent, but liable to be chastised by a combination of the other powers, should she attempt any measures hostile to their tranquillity. Germany, with all that physical strength which is stored up within her, and with all the advantages of her situation, has remained a dead mass in the heart of Europe, possessing most inferior influence in the general transactions, and opposing a powerful obstruction to the transmission of improvement among the states. Even refinement in manners, which nations sometimes acquire by imitation, without that improvement in the arts and in knowledge, on which it naturally depends, is of very recent introduction among the Germans, whose manners used to be an object of ridicule to their more polite neighbours, the French, and Italians. The slowness with which literature improved in Germany, is another striking characteristic of the situation of that country. The authors all wrote in Latin; and their own language remained entirely uncultivated. Their writings were almost entirely commentaries, of enormous size, on the ancient classics. The dulness and laboriousness of a German author became proverbial among the men of literature in other countries. No change can be more complete than what has taken place in literature in Germany during the last few years. Numerous authors have appeared on every subject. They all write in their own language, which has become a fashionable study in every country in Europe. In subjects both of science and of taste the German authors stand in the foremost rank of their cotemporaries. The German drama threatened to supplant the native in the most refined countries of Europe. Instead of the dulness formerly objected to the German writers, they are now censured for overdaring flights of imagination. The press, instead of being restrained, is indulged even to licentiousness. An activity of mind, a thirst of knowledge, a propensity to new and daring speculations strongly mark, at this moment, the German character. The novel and dangerous doctrines, which of late have agitated the world, if they did not owe their birth to Germany, found in her, at least, a most affectionate foster mother. We have one decisive proof of the improvement in industry which is making in Germany; that the demand for the commodities of other countries is daily encreasing and to a great amount; and these it would be impossible for her to procure did she not produce something to pay for them. The improvement in the Prussian states, which now compose so large a portion of the empire, is too great not to be universally taken notice of. The dominions of the elector of Bavaria undoubtedly suffered by the war; but the measures which he is pursuing for the improvement of his country are too wise not to be followed by rapid effects. The contiguity of Germany with such a number of the states of Europe makes her improvement of greater consequence than that of any other country; because it is impossible that it should not quickly be communicated to all those which surround her. Till lately she formed a barrier between the Austrian states, and great part of Poland and Russia on the one hand; and the improved parts of Europe on the other; and prevented all transmission of the attainments of the latter to the former. Now, in all probability, she will form an active channel of communication.

We have already described the change introduced into Russia, which from being as little heard of in Europe as Crim Tartary, is now so active itself, and affords so great an additional source of activity to the rest of Europe. We now remark, that though she has sunk the political importance of Sweden and

Denmark, she has not cut off their improvement. The commerce of the Baltic has encreased in the most extraordinary manner, during the last twenty years; and though Russia and Prussia obtain undoubtedly the larger proportion of it, a considerable share goes likewise to Sweden and Denmark; where the security of property is so complete, that a number of British merchants and British capitals are stationed in both these latter countries, and active in promoting their industry. This indeed is the case with Russia too. A very pleasing, and a very decisive proof of the advancement of Sweden in the highest species of improvement was communicated but a few days ago, by the annunciation of a Literary Journal, the first production of the kind in that country, to be carried on by some of the most learned members of the University of Abo.

The more cultivated nations in Europe have long observed, with regret, the obstinate resistance with which Spain and Portugal opposed all improvement, in spite of the advantages of their situation, in spite of commerce, the most powerful improver both of the moral and physical situation of mankind. Even, however, in Spain and Portugal amendment is visible. The severity both of the government and of the religion is abated. A more liberal tone is perceived in the counsels of the state; and a freer intercourse is taking place between the inhabitants of these, and of other countries. Curiosity is awakened in Spain, literature has made a visible progress in the last years, and many of the best books in both French and English have been translated into the Spanish language.

The prospect of improvement, the most important of all, is that in the Austrian dominions. Austria, though long backward, at last partook of the general spirit of the age; and what is not usual, reformation began at court. The ameliorations proposed by the Emperor Joseph were more numerous than the people were prepared to receive. However some were effected, and of great importance. Villainage was destroyed, and the subjugation of the peasantry to the nobles alleviated through the whole dominions; an admirable system of police was established, and an encreased intercourse with other nations has introduced a taste for their improvements. The great requisite which was wanting to give that spirit activity and effect is now obtained. Austria, being entirely inland and surrounded with uncultivated nations, was shut out from commerce, and from intercourse with those from whom improvement could be learned. By the acquisition of the harbour of Venice the commerce of the whole world is introduced into the Emperor's dominions. What a subject of regret to every man of sensibility has the condition of Hungary been for several ages! An extensive country, with the finest soil, and the finest climate, intersected, in every direction, by the Danube, the Tiess, the Save, and the Drave, containing inhabitants, distinguished for bravery, to the amount of six millions and a half, and yet lying in the most wretched state of poverty and barbarity! By rescuing the peasantry from the power of the lords, and by opening the country to commerce through the port of Venice, Hungary must speedily experience the most important changes. It immediately holds out to England two of the most tempting objects. The wines of Hungary, and the wool of Hungary are scarcely inferior to any in the world. And England needs be under small apprehensions at the threats of France to deprive her of the wines of France, or the wool of Spain, while Hungary presents to her a new and extensive market. To England the cession of Venice to Austria appears an object of the most splendid promise. It opens an entire new country, of great extent, and capable of the greatest improvement to her commerce, at the distance of a short and safe navigation; a country in which she must receive superior encouragement, and which must every day be capable of absorbing a greater quantity of the surplus produce of her industry. If France entertains the extravagant idea of excluding England from the commerce of Europe, she has egregiously erred in giving this harbour to Austria. The more England may be kept out of the other harbours, the more will she be thrust into this, and the more rapidly will she encourage the improvement of the Austrian states.

A striking proof of the force of the spirit of improvement which is abroad in Europe is, that even the miserable Greeks, lying under the domination of the Turks, have not escaped it. The curiosity which is awakened among them, and the passion for literature which has sprung up, is a new and important phenomenon. Many of the Greeks have resorted of late years to the German and French universities, where they study mathematics, natural philosophy, and medicine. They learn grammatically the language of ancient Greece; they explain in their schools the Syntax of Theodore Beza; and many of them write the language both in prose and verse. The present bishop of Larissa in Thessaly has sent several young men to Germany and France, and defrays the expense of their education. Daniel, a monk, who studied at the university of Paris, and now resides at Jassy, has published a geographical description of Greece. Eugenios, who was preceptor to the Archduke Constantine, and resides at Petersburg, has written a course of Logic in the modern Greek, and translated Segners Mathematics. A great number of books begin to be translated. The brothers Zosima, two opulent merchants in Moscow, have caused several works to be translated, and distributed at their own expence. A learned Greek, of the name of Anthimus, in Vienna, has translated a course of natural philosophy. Another of the name of Jannaki, who resides at Jassy, has translated into the modern Greek *Stephani Thesaurus Linguæ Græcæ*, which is not yet published. Several historical works have been translated; and the Greeks study foreign languages, particularly German, with avidity. Schools are erected in many parts of the Turkish dominions. And at Joannina, Psalidas, who was educated at Vienna, publicly teaches the mathematical, and philosophical sciences.

These facts are gratifying to every friend of humanity, as they demonstrate improvement in the condition of some of our fellow creatures; but they are peculiarly interesting on account of the effects which they promise to yield. Every country in Europe is

now opened to intercourse with every other country. No part remains shut up within itself, acquainted only with its own usages, unvisited by strangers, and ignorant of the regulations, transactions, and customs of others. All the nations mixing with one another, each sees what is done by the rest, hears too the ridicule which is thrown by the rest upon its own absurd maxims and practices; and observes the institutions which meet with the applause of all. The curiosity accordingly is astonishing which is awakened in every country to know what is done, thought, and said in the other countries. Before the last century, newspapers were a thing hardly known in Europe. It is only within the last few years that the newspapers of one country began to be an object of desire in other countries. It is now well known in what vast quantities the newspapers of different countries are carried over all Europe. News-papers in France made a very small figure before the revolution; they are now multiplied to a great number, and possess the most extensive circulation. So great a number of persons, as those connected with news-papers, being employed in every country to collect intelligence, bring forward every thing, except the most profound secrets; and every man of curiosity is now better instructed even in the cabinet machinations of foreign courts, than the statesmen of the different countries themselves formerly were with all the arts and address of their diplomatic intelligencers.

That news-papers are guilty of abuses is no proof that they are not advantageous. Even the late violent hostilities between the French and English newspapers have been productive of a most salutary effect. They have introduced a much more accurate attention to the proceedings of foreign governments. And it necessarily happens that criticising a government, to which they are not subject, to which they may even be hostile, they should do it with more freedom and severity than the subjects of that government. This is no useless restraint upon a bad, or upon a good conductor of affairs. It is no slight motive to any man to weigh his measures well, when he knows that the folly or injustice of them will be immediately detected, and exposed with ridicule or indignation to the eyes of all Europe.

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NUMBER 4.] THURSDAY, JANUARY 27, 1803.

[General View of Physics—Continued from our last.—Late Discoveries in Chemistry.]

II. ANALYSIS.

IV. *Mineral Waters.*—Westrum has found bitumen combined with sulphurated hydrogen gas, and also hydrosulphuret of lime, in several mineral waters: as in those of Neuwdorf, Limmen, Rehburg, Eylse. Hydrosulphuret of lime, it ought to be observed, has been known for some time to exist in mineral waters. For instance, it forms a part of the spring near Edinburgh known by the name of Lord Gardenstone's well.

Gimbernat has discovered that the waters of Aix-la-Chapelle contain sulphurated azotic gas and not sulphurated hydrogen gas, as was formerly supposed. This is a curious and important discovery, if it be confirmed by precise experiments; and may, perhaps, put us in the way of getting a more precise knowledge of azot, than it has been hitherto possible to attain.

V. *Improvement in the analysis of Minerals.*—No branch of chemistry has been brought to a greater degree of perfection, by the ingenuity of modern philosophers, than the mode of analysing minerals; and the advantages which have already resulted from the analysis of minerals, both to chemistry and mineralogy, and even to the art of minery, are sufficient proofs of how much consequence it is to bring that art to a still greater degree of perfection. The defects under which the mineral analysis, notwithstanding its present improved state, labours, are the tediousness of the processes, and the expence attending the preparation of many of the reagents, which must be brought as nearly as possible to a state of absolute perfection. Every new improvement, therefore, which either shortens that process, or diminishes the expence, is of very great importance. We consider the ingenious method employed by Mr. Chenevix in the analysis of the different species of corundum, the result of which he has published in the last volume of the Royal Transactions, as a very great simplification of the mode of analysing aluminous stones, which was formerly exceedingly tedious and laborious.

When stones are subjected to analysis, it is almost always necessary to fuse them with potass, in order to destroy the cohesion of their particles, and render them soluble in acids. But pure alumina does not enter into fusion with potass; of course when stones are almost entirely composed of that earth, this method of destroying their cohesion fails entirely. Mr. Chenevix has found that in these cases borax (sub-borat of soda) may be substituted in place of potash, with great advantage. Aluminous stones enter into fusion with this salt at a moderate temperature and the melted mass is soluble in muriatic acid.

His method of analysing corundum was as follows: He reduced the stone to powder, by repeatedly heating it to redness, and plunging it in cold water, and by pounding it in a steel mortar. The stone abraded was dissolved by muriatic acid, and then the substance was reduced to a fine powder in an agate mortar. It was then mixed with twice its weight of borax, and exposed in a platinum crucible to a strong heat. Muriatic acid was boiled upon the crucible and its contents, and in about twelve hours the whole of the glass was dissolved. The solution was then precipitated by an alkaline carbonat, to get rid of the borax; and the precipitate, when well washed, re-dissolved in muriatic acid. Thus all the ingredients of the stone were obtained in solution in muriatic acid, without any foreign ingredient, they were then separated and examined in the usual way.

VI. *Calamine.*—Hitherto chemists have had no very accurate knowledge of the composition of those minerals distinguished by the title of Calamine. Mineralogists have divided them into two sub-pieces; namely, 1. Common Calamine, which has a considerable resemblance to concretions or stallactites, formed by the dropping and subsequent solidification of a liquid; and 2. Lamellated Calamine, which occurs crystallized, becomes electric by heat, and has often been confounded with zeolite. Bergman published an analysis of these different ores, but the want of an accurate description of the minerals on which he operated, together with the different results obtained by Pelletier, have prevented philosophers from putting entire confidence in the results of that illustrious chemist. Fortunately Mr. Smithson Tennant has lately turned his attention to the subject, and the result of his analysis, which has been lately read to the Royal Society, shows the necessity of such investigations, if we wish to get rid of the numerous uncertainties, and apparent contradictions, which still perplex several parts of chemical mineralogy.

Mr. Tennant examined four different calamines: that of Bleyberg, that of Somersetshire, that of Derbyshire, and an electric calamine from Regbania in Hungary. The two first specimens belonged to the first sub-species of calamine, the two last to the second.

The first calamine was composed of	71.4	oxide of zinc,
	13.5	carbonic acid,
	15.1	water.
	100	
The second and third of about.....	65	oxide of zinc.
	35	carbonic acid.
	100	
The electric calamine of	68.3	oxide of zinc.
	25.0	silica,
	4.4	water.
	97.7	
	2.3	loss.

Hence we see that there are three varieties of calamine. The first a subcarbonat, containing water, or according to Mr. Tennant's ingenious conjecture, a compound of carbonat of zinc, and hydrat of zinc, in the proportion of 2 to 3; the second a carbonat of zinc; and the third a compound of zinc, silica, and water.

The calamine belonging to the first of these divisions, or the calamine of Bleyberg, was white, and of a stalactitical form, specific gravity 3.584. Before the blow pipe it became yellow, and was gradually dissipated, as is the case with all calamines. It dissolved in acids with effervescence.

The first specimen of the second species of calamine, or the carbonat of zinc, was of a mamillated form, externally brown, but internally greenish yellow; specific gravity 4.346. The second specimen, or Derbyshire calamine, was of a pale yellow colour, and of the same specific gravity very nearly with the other, but it was crystallized, and of course would have been ranked by Mineralogists among lamellated calamines. Hence the reason of the difference between the analysis of Bergman and Pelletier. Bergman had analysed a crystallized carbonat of zinc, and Pelletier an electrical calamine, or silicated oxide of zinc.

The electrical calamine analyzed by Mr. Tennant was regularly crystallized. Its specific gravity was 3.434. It became electrical by heat; and before the blow pipe decrepitated, and shone with a green light

VII. *Emery.*—Emery is a mineral which has been long known, and in common use, for polishing the surfaces of hard bodies. It is brought to London from the islands of the Archipelago, where it is probably found in great abundance. It is usually accompanied with iron ore, and frequently with pyrites, mica and felspar. Mr. Smithson Tennant has lately subjected it to a chemical analysis; and it appears from his experiments that it agrees in its properties and composition with the adamantine spar or coruhdum lately analyzed by Chenevix, who considers it as a variety of sapphyr; or rather he considers the sapphyr as a variety of it. His conclusions will come under our consideration in a future number. The result of Mr. Tennant's analysis is that emery is composed of

Alumina	86
Silica	3
Iron	4
Loss	7
	100*

VIII. *Paper.*—Brugnatelli informs us, that when paper is treated with nitric acid, in the usual way, it yields suberic acid, mixed with oxalic acid. This is certainly favourable to an opinion, started some time ago by Fourcroy, that the outer bark of all vegetable bodies is of the same nature with cork.

IX. *Humours of the Eye.*—Mr. Chenevix has lately read a paper to the Royal Society, on the properties, and chemical analysis of the humours of the eye. His experiments were made chiefly on the eyes of sheep. The following is a short view of the most important facts which that paper contained.

1. The aqueous humour is clear, transparent and insipid. The specific gravity at 60° is 1.0090. It does not alter the colour of vegetable blues. When boiled a slight coagulum appears. The infusion of tan and nitrat of silver occasion precipitates in it. It is composed of water, albumen, gelatine, muriat of soda.

2. The crystalline humour is also clear and insipid. Its specific gravity at 60° is 1.1000. It dissolves almost completely in cold water. When boiled it partly coagulates. Tan occasions an abundant precipitate in its solution. It is composed of water, albumen and gelatine. The proportion of water is smaller, and that of albumen and gelatine greater than in the other humours. It contains no muriat of soda.

3. The vitreous humour, when deprived of its capsules, agrees in its density, and in all its other properties with the aqueous humour.

No phosphat can be detected in the humours of the eye, though that has been announced by several chemists.

The chemical properties and composition of the humours of the human eye, as far as they have been examined, agree with those of the eye of the sheep. In the human eye the density of the chrystalline lense is 1.0790, that of the aqueous and vitreous 1.0053. Thus it appears that the ratio of the densities of the different humours differs very much in the human eye and that of the sheep.

The humours of the eyes of birds agree also in composition with those of the sheep; but in birds the density of the vitreous humour is greater than that of the crystalline. These different humours have probably an achromatic effect, and it is likely that in man that achromatic property is greater than in the sheep. The density of the crystalline lense increases gradually from the circumference to the centre. The density of the whole lense of a sheep's eye was 1.1000, that of the central part 2.2151.

III. CLASSIFICATION AND THEORY.

II. *Affinity of the Earths.*—This subject has lately occupied a good deal of the attention of chemists. Guyton some time ago published a set of experiments on the subject, showing that many earthy salts, when mixed together, occasion precipitates. These experiments were soon after repeated by Darraco, who demonstrated that many of the precipitations announced by Guyton were merely the consequence of the impurity of the solutions which he employed. The experiments of Darraco have been lately confirmed by those of Mr. Chenevix. The result of the experiments of these two chemists is as follows.

1. There exists an affinity between silica and alumina. When silicated and aluminated potash are mixed together the mixture gelatinizes.

2. There is a strong affinity between alumina and magnesia. When muriat of alumina and of magnesia are mixed together and ammonia added, the two earths precipitate combined.

3. There is an affinity between lime and alumina. The last earth facilitates the solution of the former in potash.

4. Lime water, barytes water, and strontian water occasion a precipitate, when dropt into silicated potash.

* Phil. Trans. 1802.

5. None of the earthy muriats occasion precipitates when mixed together.

XII. *Prussic Acid.*—Richter of Berlin and De Hoover have announced in the Number of Van Mons' Journal de Chimie for December last, that Prussic Acid is capable of bearing a red heat, without being decomposed: and they affirm that a purer and more completely saturated alkali may be obtained, by applying a strong heat to the mixture of blood and alkali in preparing the blood lie, than by observing the common process. This is perfectly consistent with the experiments concerning the composition of the Prussic Acid made long ago by Scheele and Clouet. The former obtained the acid by heating a mixture of potass and charcoal to redness in a crucible, and then thrusting pieces of sal ammoniac to the bottom of the mixture. Clouet formed the same acid by causing ammoniacal gas to pass through charcoal heated to redness in a porcelain tube; and the French chemists, who repeated this experiment, found that to succeed in obtaining the acid the application of a strong red heat was necessary. Now if a strong red heat assists in forming the acid, it is not likely that it will destroy it when formed.

Richter has announced also that the affinity of prussic acid for potash is much stronger at a red heat than at the common temperature. This would be an extraordinary circumstance in a substance of so soluble a nature as the prussic acid. But Richter's experiments do not prove his position. They show only that a red heat is not sufficient to decompose pure prussiat of potass. Neither is a red heat sufficient for decomposing carbonat of barytes, yet it would be absurd to say, that the affinity of carbonic acid for barytes is increased by heating them to redness.

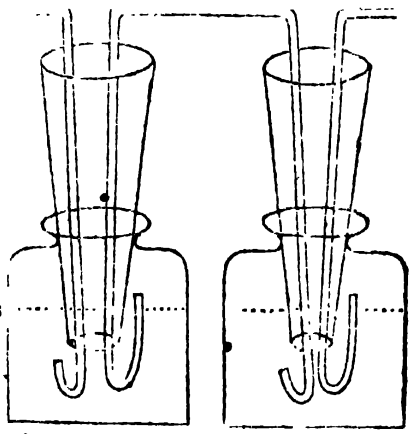
XIII. *Light by the collision of hard bodies.*—It is well known that the sparks occasioned by the collision of flint and steel in the open air are small particles of the steel, abraded by the stroke, and heated to redness, by their union with the oxygen of the common air. Hence the reason that no sparks appear when the collision is made to take place in the exhausted receiver of an air pump, as was long ago ascertained by Mr. Hawksbee; but a faint light only is perceived. Mr. Davy has lately published some experiments on this subject (Journal of the Royal Institution, N° 12, p. 264), and has rendered it extremely probable, that in this case the light is not connected with the combustion of the steel, and that steel never becomes luminous by collision, except in consequence of combustion. He supposes that the light is occasioned by the abrasion, and friction of minute parts of the flint.

He observed that when a fine and thin flint, which may be easily broken, is used for the collision in vacuo, the light is much more vivid than when a thick and strong flint is used; and with a strong flint just sharp enough to give sparks with steel in the atmosphere, it is seldom that any light is perceived under the exhausted receiver. He inserted a thin piece of iron pyrites in the gun lock in place of the flint. By collision in the atmosphere it gave very vivid sparks, chiefly white, from the combustion of the iron, but sometimes mixed with a few red sparks from the combustion of particles of pyrites. But under the exhausted receiver this body produced no light whatever by collision with steel.

Mr. Davy supposes that the particles of iron become luminous and burn, by being raised first to such a temperature as enables them to combine with oxygen; and the surface of the filament of iron is so great compared with its bulk that the heat evolved by this commencement of oxydation must be relatively much greater than in common cases, and the oxide formed will not be so ready to form a coat sufficiently thick to cover the metal from the action of the air.

The bodies that become luminous when struck or rubbed in vacuo, under water, or in gases not capable of supporting combustion, such as carbonat of lime, flour spar, siliceous stones, glass, sugar, and different salts, are both phosphorescent bodies and electrics; hence the flashes they produce are most likely partly electrical and partly phosphorescent.

XIV. *Woulf's Apparatus.*—A very ingenious improvement of Woulf's apparatus has lately been proposed by Mr. Schmidt. The apparatus of Woulf, as is well known, consists of a series of three mouthed bottles, connected together by glass tubes, and the whole connected again, by a tube, with a receiver luted or ground in the usual way to a retort. This apparatus is indispensably necessary in many chemical distillations and processes. It is exceedingly troublesome to lute the tubes into the bottles at every process; yet this is at present necessary, for if we attempt to fit them by grinding, they scarcely ever fail to break to pieces in putting the apparatus together or taking it in pieces. Several methods of obviating this inconveniency have been proposed; but the following of Schmidt is one of the simplest which we have seen. The bottles are made with wide necks, and a large funnel of glass is either ground into each, or hermetically sealed in it, which is easily done when the bottles are made. The tubes having their points slightly curved, and bent in the proper shape, are introduced into



these funnels, and the bottles are filled with water or liquid, according to circumstances. They are then placed at such a distance from each other, that the bent ends of the tubes are beyond the bottom of the funnel altogether, and one of these bent ends must be of such a length, that it shall reach above the surface of the water. The figure in the margin will make the whole contrivance easily understood. The funnels answer the purpose of tubes of safety. The gases that enter the bottles will collect on the surface of the water, and what is not absorbed will enter the

mouth of the tube that is above the water, and pass on to the other bottle. This contrivance not only saves the trouble of luting, but the bottles may be moved about without any great hazard of breaking the glasses, a circumstance of great importance in many chemical processes.

STEAM ENGINE.

It is said that a very important improvement has been lately made in that important machine. The force of the steam has been rendered about fifty times greater. We hope soon to be able to give a more particular account of this great discovery to our readers.

WE have lately received from Madrid a very valuable Supplement to the "Quinologia" of Don Hipolito Ruiz, published by him and Don Jos. Pavon, co-editor of the Flora Peruviana & Chilensis. It contains an instructive account of four new Species of Cinchona, discovered by Don Juan Tafalla, an able Spanish Botanist, in the *Andes* of Peru, where they are found as far as Chicoplaya, Monzon and San Antonio de Playa grande. They are named Cinchona micrantha, Cinchona dichotoma, Cinchona glandulifera, and Cinchona acutifolia.—Possessors of the Flora Peruviana, &c. will find a description of the first in the second vol p. 52, fig. 194; of the second, in the same vol. p. 53, fig. 197; of the third, in the third vol. p. 64, fig. 224; and of the fourth, in the same vol. p 65, fig. 225. The supplement further contains an able and animated defence of the Peruvian species of Cinchona, against Don Franc. Zea, who contended in a Letter, inserted in the 5th Number of the "Anales de Historia Natural," that the four species of Cinchona, discovered by Don Jos. Cel. Mutis in the kingdom of Santa Fé, are superior to those found in Peru. It terminates with a letter to Citizen Jussieu, tending to remove the objections and resolve the doubts, started by him against the genera of the prodromus of the Flora Peruviana & Chilensis.

LITERATURE.

HISTORY, CHRONOLOGY AND GEOGRAPHY.

OF all the branches of literary composition, there is none that in theory appears more easy than History, and none that in practice is really more difficult. If the historian is deficient in fancy, his works will be too dull for perusal; and if that faculty be vigorous, he will find it no easy matter to restrain its unseasonable flights. The business of narrative is to inform, but to inform in the easiest and simplest way, and yet with a sort of delight. The figures of rhetoric and the flowers of poetry are not here in their place. The historian rejects such allurements, not because he is incapable of displaying them, but because they become not the plainness and gravity of that kind of writing in which he aspires to excel. To compose an agreeable and approved history, he should therefore be master of supererogatory talents, of superfluous powers, and feel in himself a vigour which he rarely thinks fit to exert.

If the above description conveys a true notion of history, we are afraid that very few writings of the age can be assigned to that class of literature. They are the works of declaimers, polemics, critics, and poets, more properly than of historians. Of the opposite extreme, comprehending those authors who deal in plain matter of fact only, without any regard to the graces of composition, it will be time enough to speak when they begin to be read. They may supply materials for the historian; but as they do not inform with any kind of delight, they must be content to rank with the gazettes and mere chronicles of the times.

It has seldom happened that an age, productive of great events, has been adorned by men qualified to relate them happily. The Persian and Peloponesian war form to this remark a memorable exception; and the historians Herodotus and Thucydides thence partly derive their long established pre-eminence. The illustrious reign of Alexander was far less fortunate. Cicero projected only his great historical work on Rome. Father Paul indeed lived in the time of the reformation, and Clarendon was both an actor and a sufferer in the rebellion which he describes. The importance of this circumstance is visible in their writings, which, with the gravity and dignity of history, unite a richness and raciness scarcely equalled by authors of any kind. The age in which we live has been fertile in great revolutions: it remains yet to be seen, whether any man of competent abilities has been silently employed in treasuring up and recording them.

To this walk of literature, as far as it respects our own country, several circumstances appear to have been of late peculiarly adverse. I will not dwell on the party spirit always lurking in mixed governments, and which has been excited and much embittered by the events of the times. The French, who were the principal actors, are also the great relaters of their own exploits; and their memoirs are now characterized by vapid declamation, as they formerly were by poignant epigrams. Both are great blemishes in history, and appear peculiarly ungraceful in English imitations, especially where an *incalculable* number of new words continually betray the Gallic original. In addition to this imported mischief, the simplicity of historic style appears to suffer by the contagion of that loaded verbosity too usual in our public debates. An orator may be heard with pleasure, while he discusses a popular topic with little reach of thought, and in very inaccurate and inelegant language. Much profundity or refinement is not calculated to gain attention with a mixed assembly. He has only to ring the changes on certain technical phrases, pleasing at the moment to the public ear. The sympathy of the crowd, enlivened by his clear sonorous voice, will raise him to his due reward in temporary fame. But history is Κτημα ες αει "a perpetual monument, an everlasting possession:" it is to be read calmly in the closet by distant ages and nations; both its style and its reflections must bear impartial examination by the unflattering torch of criticism.

Chronology and Geography have been called the two eyes of history. In the former we have not any recent improvements. The revived acquaintance of

Europeans with the East betrayed some writers into chimerical opinions concerning the high antiquity of arts and empire in Asia. But the pretensions of the Indians in this particular are now exploded like those of the Chaldeans and Egyptians of old; and their chronology, even on a slight examination, has appeared not less absurd than their geography. Mythology and allegory, not undisguised truth, have always formed the main literary pursuits of the East; but amidst the wild and insipid fables of the Persians and Hindoos, which with some pass for history, it will be difficult to find any notices that harmonize with Herodotus, Xenophon, Diodorus, Strabo, and other invaluable monuments of antient literature.

From the nature of Geography, that science must be continually progressive among a people flourishing in navigation and commerce. Some of the out-lying dominions of Britain, and some colonies belonging to our enemies, of which the fortune of war gave us a temporary possession, have been recently described with more accuracy than at any former period. The arms of a neighbouring, and then hostile nation, carried our own into Egypt and Syria, countries long sunk into barbarism and obscurity, but once seats of civilization, and scenes of memorable transactions. What advantages may yet be reaped from the labours of learned men that followed in this train of war, it would be vain to guess. Hitherto, we fear little has been added to the information which Pocock, Norden, Perry, and others had previously communicated. The last work of the Association for promoting Discoveries in the interior parts of Africa was published but a few months ago. It ascertains the scite of the temple of Hammon, as discovered by Mr. Browne; and gives hopes, that shortly we shall see explored the great western branch of the Nile, a river of more importance than that which Mr. Bruce, and the Jesuits before him, had traced from the mountains of Abyssinia. Geography, in fact, is making perpetual advances; many materials were provided: and a huge colossus has been reared by Major Rennell in his Geography of Herodotus, incomparably the first work of the kind. Perhaps our better knowledge of Asia and Africa will in time be applied to its noblest use, not merely to describe or direct the caravan on its route, but to explain great events and memorable revolutions. The undertaking, indeed, to be successful will require much taste, in addition to the groundworks of real knowledge. Knowledge is a plant of hardy growth, which has only to fear the ravages of Barbarians, and the total subversion of society; whereas, taste is a tender flower, exposed to perpetual and innumerable dangers. Yet this perishable gift cannot be too dearly cherished, or too anxiously defended, since taste is the true rod of Minerva, that adorns learning with grace, and stamps it with immortality.

Elements of General History, ancient and modern. To which are added, a Table of Chronology, and a comparative view of ancient and modern Geography, illustrated by Maps. By Alexander Fraser Tytler, 2 *Volumes*, 8vo.

ABRIDGMENTS of history have been censured as tending to divert youth from study and research, and indulging indolence and superficial reading. But let us consider, that only a small portion of mankind can have leisure, if they have inclination, for learned and deep investigation: and let us also remember, that the greatest and most industrious historian must have commenced his acquaintance with history by the perusal of abridgments. Many people, it is true, rest satisfied with such brief narratives; and there are many, even among those who have a taste for reading, whose avocations render it necessary and proper that they should be satisfied with them. But upon readers of another description they have often a very different effect, and excite a thirst of further knowledge, a desire of mounting to the fountain-head of authority. Thus, to either class of readers, such works must be acknowledged to be useful.

The work before us contains the outlines of a course of academical lectures on general history, delivered for many years in the university of Edinburgh with public approbation. Mr. Tytler observes, that there has been almost in all ages some one predominant nation, to whose history those of the others seem to be subservient, and he has therefore exhibited the succession of those predominant powers, as the principal figures in a succession of historical delineations, wherein, the inferior, or dependent nations are grouped in their due places.

Omitting entirely the Jewish history, as belonging to a different department of study; and premising some considerations on the government, laws, religious institutions, arts, and sciences, of the early ages, with very brief accounts of the Assyrians, Egyptians, and Phœnicians, Mr. Tytler passes to the history of Greece, on which he bestows fourteen sections; and he allots five more to political reflections arising from the history of the Grecian states, the state of the fine arts, the poets, the historians, and the philosophers of that country, with brief accounts of the most distinguished characters in each of these classes. In like manner he goes through the Roman history in twenty-two sections (24th—45th), whereof two are appropriated to Carthage and Sicily, in order to make the reader acquainted with them, previous to the destruction of the one, and the subjugation of the other. Two more sections are devoted to Gothic history, and one to the method of studying Ancient history. A comparative view of ancient and modern geography concludes the first volume.

The second volume, consisting of sixty-seven sections, contains the modern history of the world, the æra of which is dated from the fall of the western Roman empire and the final subjugation of Italy by the Lombards. In this part of the work, the leading objects are more various; and not unfrequently it happens, that one nation, after acting the principal character on the theatre of the world for some time, withdraws to make room for another, which is in its turn superseded by a third; and thus a successive view of the pre-eminent nations, wherein those who have sunk from the first place frequently resume their rank as principals, is laid before the readers. This part also contains sketches of ecclesiastical history, and accounts of the constitutions and policy of the several kingdoms, with an essay on chivalry and romance,

and views of the progress of literature, arts, science, and commerce.

Such, in few words, is the plan of the work. As a specimen of the execution, we subjoin a few extracts.

Vol. I. p. 30.—"The detail of the war of Troy rests chiefly on the authority of Homer, and ought not, in spite of modern scepticism, to be refused, in its outlines, the credit of a true history.—After a blockade of ten years, Troy was taken, either by storm or surprize, 1184, A. C. and being set on fire in the night, was burnt to the ground, not a vestige of its ruins existing at the present day. The empire fell from that moment. The Greeks settled a colony near the spot, and the rest of the kingdom was occupied by the Lydians."

P. 123. "At the period of the abolition of the regal government, the Roman territory was extremely limited.* The only use they made of their victories was to naturalize the inhabitants of some of the conquered states, and thus increase their population. Thus their strength being always superior to their enterprizes, they laid a solid foundation for the future extension of their empire.

"In the accounts given by historians of the strength of the armies, both of the Romans in those early times and of the neighbouring states their enemies, we have every reason to believe there is much exaggeration. The territories from which these armies were furnished, were incapable of supplying them.

"In the continual wars in which the republic was engaged, the Romans were most commonly the aggressors. The causes of this seem to have been the ambition of the consuls, to distinguish their short administration by some splendid enterprise, and the wish of the senate to give the people occupation to prevent intestine disquiets.

"The regal government subsisted 244 years, and in that time only seven kings reigned, several of whom died a violent death. These circumstances throw doubt on the authenticity of this period of the Roman History."

As to the doubt, which Mr. Tytler finds arising from the duration of the reigns of the seven kings, we must differ from him so far as to assert positively, that it produces *no doubt*, but *a clear and undeniable conviction* of direct falsification, and that childish passion for high antiquity, which engendered the fictions, wherewith the Egyptians and many other nations have foolishly attempted to supply the want of early history. Every unprejudiced person, who will take the trouble of examining the history of Rome, prior to the destruction of Carthage, by the test of rational criticism, and such authority as can be obtained, will see reason to pronounce, that the greatest part of it is little less fabulous than Geoffrey of Monmouth's history of the Britons, or the Arabian Tales. This almost total want of foundation in truth could not possibly escape our author, even though he should never have seen the judicous French essay on the uncertainty of the first five (supposed) centuries of the Roman History. Indeed, if we continue a strict examination of it somewhat lower, we shall find ourselves well warranted to say, that there was not one author, besides Polybius, a Grecian, who could be called an historian of Rome before Julius Cæsar. Now, as the records of the Romans, if any ever existed, were burnt (according to the accounts of their own writers) when their city was taken by the Gauls; and scarcely any historic events are noted by Antiochus of Syracuse, who only says that Rome was built by the Pelasgi before the Trojan war, or by Theophrastus, Theopompus, or Clitarchus (See Plin. l. III. c. 5.), Heraclides Ponticus (ap. Plut. in Camill.), Aristus or Asclepiades (ap. Arrian. l. VII.), or Lycophron in his Cassandra, (and these, we believe, are almost all the Grecian writers before the age of Polybius, who mention Rome in any way whatever) it necessarily follows, that no connected or authentic history can possibly be preserved. Julius Cæsar himself, it must be remembered, was the recorder of his own actions, of which we should see a very different account, if we had any Gallic or British historians of that age * It is only from the age of Augustus, that the commencement of clear Roman history can be dated: and even after his time the chronology of the Roman history, which with its *anno urbis conditæ* makes such a pompous figure in the works of latter historians and chroniclers, who have assumed it as a standard to regulate other histories, was not ascertained by any generally received authority of record or history. Of this we have many proofs in various parts of Pliny's Natural History, of which we shall produce only two. Pliny, in his preface or dedication to Vespasian, says that he presents his work to him in his (the Emperor's) sixth consulate, which was A. D. 77. In l. XIV. c. 4. he reckons it 230 years since the destruction of Carthage, which was 146 years before Christ; so here is an error of nine years in the date of so famous an event, and of no very remote antiquity. But he has an anachronism of no less than 30 years in the space of time between the death of Numa and the consulate of Cornelius Cethegus and Bebius Pamphilus (l. XIII. c. 13), if it may be called an anachronism for differing from a date resting upon no authority.

Many more proofs of the fabulousness of what has passed for the Roman history might be adduced, if this were a proper place for them: but these are sufficient for a specimen of the little dependence there ought to be upon those authors from whom boys are made to imbibe their first notions of history. Perhaps Mr. Tytler may not have thought himself at liberty to depart from the long beaten track of received history, and might think himself bound to follow the many great men who have travelled in that road. But let a professor of universal history never depart from the first law and *magna charta* of historians. *Ne quid falsi dicere audeat, ne quid veri non audeat*; for all deference to precedents or names ought to give way to TRUTH, without which the most artful or the most pleasing relation of events is not *history*, but *romance*. *Amicus Socrates, amicus Plato, sed magis amica Veritas.*

At the end of the second volume there is a chronological table, with a marginal chronicle of illustrious persons, wherein we observe Sanconiathon placed

* From the unquestionable authority of a treaty, preserved by Polybius, it appears that the Roman territory was then much more extensive than those, who in after ages took upon them the office of historians, have represented it. R.

* Nennius, a British author of the ninth century, who, though fabulous and mutilated, is as good authority for events several centuries before his own time, as Virgil or Livy, or any other of the Roman writers can possibly be for the history of their kings, says, that Cæsar returned without victory, his soldiers being slaughtered and his ships dashed in pieces. And Lucan and Tacitus, Roman authors, who lived soon after Cæsar, go even farther than Nennius, and tell us, that he was actually put to flight by the Britons.

400 years later than Mr. Tytler makes him in Vol. I. p. 31.

Though this work is far from being voluminous, Mr. Tytler has comprised a great mass of information in it, besides finding room for a variety of brief and judicious reflections on the constitution, laws, policy, manners and customs, of the various nations, and also short characters of the philosophers, historians, poets, and artists. The narrative, though concise, is agreeable; and many good reflections arise to the reader from the manner in which the events are related. Though we differ from our author in several points of history, and observe a pretty considerable number of inaccuracies or mistakes, we are not so unreasonable, or so little acquainted with the labour of research, as to be insensible of the difficulty of conducting a work which embraces so very wide a range. In a second edition (which, if this is not a very large impression, will probably soon be called for) the author will have an opportunity of correcting the mistakes, some of them perhaps typographical, which may in many cases be done without altering even the construction of the sentences: such a correction we earnestly recommend to him.

The book is not much illustrated by six maps, of which we can only say, that they are not in Mr. Ainslies best manner, and are not crowded with information.

REMARKS ON THE COMMENTATORS OF SHAKSPEARE.

TWO GENTLEMEN OF VERONA.

Act I. *Scene II.*

I see you have a month's mind to them. Though the expression *a month's mind* is explained at large by the critics, as a funeral ceremony; surely that ceremony can have no relation to that use of the phrase here, which even now is not quite obsolete, and means having a great desire for any thing.

Act I. *Scene III.*

Which would be a great impeachment to his age. "Impeachment, Mr. M. Mason very justly observes "signifies *reproach, imputation.*" Steevens. Very true, but surely this discovery hardly merited the joint labour of two critics.

Act II. *Scene I.*

Servant. "Here Sylvia calls her lover servant, and "again her gentle servant. This was the common "language of ladies to their lovers, at the time when "Shakspeare wrote." Sir John Hawkins.

Mistress and Servant continued to be correlative terms for honourable lovers, so late at least as the time of Dryden. At present the latter is quite disused, and the former, in common speech, without an epithet, applied only to a dishonourable connection.

Act II. *Scene IV.*

'Tis but her picture I have yet beheld. "This is evi-"dently a slip of attention, for he has seen her in the "last scene, and in high terms offered her his ser-"vice." Johnson.

"*I believe,* Proteus means that as yet he has only seen her outward form, without having known her long enough to have any acquaintance with her mind." Steevens. Dele *I believe* (for there can be no doubt) and the note of Mr. Steevens is unexceptionable.

Act III. *Scene I.*

For long agone I have forgot to court,
Besides the fashion of the time is changed.

"The mode of courtship; the arts by which men "recommend themselves to the Ladies." Johnson. Was this note wanted?

Which is much in a bare Christian. "Bare has two "senses mere and naked." Steevens. Or this?

As frequent instances occur of this attempt to explain phrases that are *inexplicable* because no words can make them plainer than they are, I shall in future distinguish such notes, by marks of admiration, only, thus!!! encreasing their number in proportion as the note is less wanted

Act IV. *Scene III.*

As when thy lady and thy true love died,
Upon whose grave thou vow'st pure chastity.

Mr. Steevens's long note about widows, and widowers vows and citing Dugdale, may shew his reading, but can have no relation to this passage, which obviously alludes to the death of an honourable mistress and not a wife.

To the EDITOR of the LITERARY JOURNAL.

SIR,

IN addition to your just censure of the many uninteresting annotations on Shakspeare, let me mention one, which always appeared to me of so very laughable a kind, that one would be almost tempted to suppose it to have been purposely invented, in order to ridicule the extravagant conjectures of Editors. The Poet mentions somewhere, I forget where, "Fields which are pionied and twilled." Some Editors suppose him to have written *pionied and tulped*, viz. that the fields were decked with pionies and tulips. I have not observed, that this conjecture has been rejected by other Editors; and if I am not mistaken, it is seriously mentioned by Mr. Warton, if not with approbation also. Yet Shakspeare could certainly mean nothing more, than that "The fields were worked and tilled." Spenser uses *pioning* somewhere for *labouring:* and all persons know, that *pioneers* attached to an army are those men, who are reserved in order to make roads, cast up trenches, and do other acts of manual *labour*. The word indeed seems to have originated with the military in former times, when soldiers were all horsemen, and the foot destined chiefly to such necessary acts of labour: hence *pioneer* was formed from the Italian and French for *foot*, viz. *pied;* and hence *pion* still signifies at chess in French the common men, whom we corruptedly call *pawns*.—As to *twilled*, one should have thought, that it might be easily understood to mean *tilled* or *toiled;* these words having still nearly the same sense, and originally the very same, from the Saxon *tilian, to prepare* in general, and particularly *to prepare the land for seed*. Hence the Dutch have formed *tylen* and we, *toil*, as well as *till*: which latter although now used in a more confined and particular sense, as applicable only to the *labour* bestowed on land designed for corn, yet originally meant the same. I

hope therefore that the later editors of Shakspeare, whom I have not consulted, have passed over this conjectural emendation in silence, which is all the refutation, which this and many such others deserve. *Tailled* was formed by a vitious imitation of the French pronunciation of *toile*, and is still used for a certain mode of *weaving*.

It may not be amiss to observe, that *toile* in French comes from quite a different root, and has a different sense in all cases. It means *cloth, linen, nets, snares*, or something that is woven, and comes from the Latin *tela*, a web.—*Tile* both in English and French, comes from a still different root, viz. the Latin *tegula* a *covering*. However, we have borrowed the French sense of *toile* in one instance, namely when *toils* mean *snares*, and not *labours*, just as our ancestors borrowed the French sound in *twilled*. *Till* in English, besides its sense when employed as a preposition, has also another different sense; it means *a wooden frame or drawer*. This sense comes from the Saxon *til* or *thil*, which means any utensil framed together out of wood. We still retain the use of this word to signify that *frame of a cart*, under which the nearest horse is placed, but here it is called *thill* and the horse the *thiller*: yet in the former case it is called *till*; the Saxon also makes use of both words. I may observe farther, that the Germans write it *thall*; and we may all remember a dispute between the French and Germans, not long since, about the *thall-way* of the river Rhine, which means that bed of the river, in which the *wooden frames* of the vessels employed upon the river usually pass and repass, as the safest course of navigating them. H.

P. S. I am informed that *twill* is still sometimes in use to signify the putting a garden in order.

FEMALE BIOGRAPHY.

By MARY HAYES, 6 vols. 12mo.

WE have received much pleasure from the perusal of this work: the materials, collected from various authors, are put in a pleasing form; the language is in general flowing and correct; the reflexions apposite, and favourable to the cause of Religion and Morality. This last is a praise we should hardly have thought necessary to have given to the work of a lady, had we not been induced to do it by some recent productions of the female pen.

In this, however, as in all other publications of the same kind, some names are introduced which might have been omitted. Some lives are more concise than they ought to have been, some are much more extended; and some given with undue partiality. Madame Roland occupies infinitely more room than she ought in a book of General Female Biography; and Mrs. Macaulay is drawn with partiality even to hyperbole. Here the fair Authress has been misguided by the avowed friendship of a certain Mr. Arnold. The writer of this article was very much in Mrs. Macaulay's company, during the zenith of her fame. She certainly had a good figure, but was far from possessing the personal advantages attributed to her in page 295 of her life; her form and face were very far from attractive. In politics she was a furious bigot, and what, in the present day, would be termed a violent Democrat. As a proof of her intemperate and something ridiculous zeal, on coming in from the Park, where she had met the king with his usual escort, she made, in the hearing of the writer, the following observation:—"I have seen what has disgusted me, I have seen the Chief Magistrate "driving through his own Park among a peaceful "people, surrounded by a guard of armed mercenaries." To general literature she always openly disclaimed all pretence, which the following apothegm, given on the same authority as the last, will confirm. On the Paradise Lost being mentioned in a mixed company, she said, "Of Milton the songster I think "but little, it is Milton the politician that I revere." There is a remarkable fact relating to her history, which we do not recollect to have ever seen noticed, and which we shall merely state, without making any comment on it. She did not publish one volume of her history during her widowhood. She laid down her pen on the death of Dr. Macaulay, and resumed it on her marriage with Mr. Graham.

We are sorry before we conclude, to be obliged to bring one heavy charge against a passage in the work before us. In page 219 of the life of Madame Roland, a word is cited with which we cannot pollute our paper. It never we believe was before written by the pen of a woman, or ever came out of the mouth of a woman unaccompanied with the effluvia of gin. It is true the initial only is given, but if a word is so expressed that it must be understood, it is perfectly immaterial whether it is done by one letter or twenty, and we earnestly and sincerely recommend to the Authress immediately to cancel the leaf in all the remaining copies.

EL TESORO ESPANOL. 4 Tom.

THIS is a collection, printed in London, of select pieces in verse and prose, from the best Spanish writers, on the plan of our Elegant Extracts; and a treasure it is to the learner of Spanish; as he will have the epitome of a library brought before him which he could hardly collect, even with great difficulty, at any expence. The typographical part of the work is executed with great elegance and accuracy. For the amusement of our English readers, we shall give them the Translation of some short Extracts, in verse and prose.

Paragraph of a Sermon preached by F. Gerundo, in his Parish, from the works of Don F. Lobén y Salazar.

'But what loud clamour is this? What an harmonious 'tumult draws my attention another way! What do my 'powers of hearing perceive, what visual objects present 'themselves to my laughing imagination, more clear, more 'perceptible than the actual perceptions of the vulgar? 'What do I hear? What do I see? what can I hear or see 'but a company of dancers, such as when crowned mo'narchs shook their heels at the sight of the holy ark. 'For the penitent king of Edom said, *Et saltabat David 'totis viribus*. He skipped about with all his might; in those 'days they did not attend to the fashionable minuet step, 'or the *pas de rigadon*, but they jumped at once into the 'air, and shook their legs with all their force, *saltabat David 'totis viribus*. Is not this exactly what we see performed

'by those eight athletic labourers whose legs and arms 'move like the wind? But David was a crowned dancer— 'well in this our dancers shall not yield to David. We 'have crown for crown; for Isaiah also says plainly, *et pilosi saltabant ibi*, and our dancers have thick heads of hair, 'bushy perriwigs, and high foretops. It is impossible for 'any thing to be more like than the vision to the spectacle 'before us.'

SONNET,

By el Conde de Norona.

RECOLLECTION OF AN ABSENT LOVER.

'Bright ebon threads, that vainly try to hide
'A cheek of roses, and a neck of snow;
'Or, thrown with happy negligence aside,
'The beauteous forehead's dazzling whiteness show;
'Eyes where the flames of young desire abide,
'And sable eye-brows, Love's resistless bow;
'Though distant far, still on my faithful breast
'Indelible is every charm impress'd!
'And you ye dimples sleek, by accents form'd
'Of playful laughter, breath'd thro' pearly rows,
'Whose gentle murmurs seem to sooth mine ear!
'If by this fleeting image only warm'd
'My agitated soul its senses lose,
'How shall I bear, indeed, to see and hear!'

EPIGRAM ON AN EPIGRAM.

By Don Juan de Yriarte.

'The qualities all in a bee that we meet,
'In an epigram never should fail,
'The body should always be little and sweet,
'And a sting should be felt in its tail.'

BY THE SAME.

'Three enemies, the flesh, the world, the devil,
'Are often sources of the soul's perdition;
'Three are the sources of the body's evil,
'Th' Apothecary, Surgeon and Physician.'

*** *An extensive arrangement has been made, which will enable us, as soon as our Channels of Intelligence are complete, to give the earliest notices of the Literary Proceedings of Foreign Countries. Those even in which the spark of Literature has but lately been kindled, and those in which it is almost extinguished, will not be overlooked. The interval will be employed in giving an account of the present state of Literature in each country. That of Russia, will appear in our next Number.*

MANNERS.

AS it may seem disrespectful to delay the favours from correspondents beyond the usual rates and extent of admission, we shall devote the present article to a few letters received about the commencement of our undertaking; and as our correspondents must be sensible that variety is expected in a publication of this nature, we trust they will agree with us that brevity must for that reason be the strongest recommendation to an early insertion.

To the EDITOR of the LITERARY JOURNAL.

SIR,

IN the department of manners, you will unquestionably find it necessary to cast your eyes over every spot in this extensive metropolis, where manners are prominent and singular; but as I suppose you are not provided with more of the organs of sight than other individuals, I hope you will not reject the offers of one, who has little else to do in this world than to look about him, and extract amusement or instruction, from whatever is offered to the publick gaze.

As you seem to have a more comprehensive grasp than to confine your ideas of manners to dress only, which with some people is the *ne plus ultra*, and with others the "whole duty of man;" I hope you will advert to the extension of the empire of Fashion to *words* as well as things, and that in particular you will record as a striking proof of the universal empire of Fashion, that all words in common use are fast losing their meaning, and that a person, who wishes to interpret the common language of the day, might go with much more probability of success to any book rather than to an English Dictionary.

I have been led to consider this subject from a long perusal of the morning papers, and certain other publications of recent date, in which I find language so totally perverted from its original sense, that I know not how to make out a rational meaning, unless by reading backwards, or interpreting in some way different from what is usual with those, who read to be informed. I have very little doubt, Sir, that in a few years, we shall have some dashing, and *bon ton* gazette, published according to the following plan, ranged under distinct *heads*, with *bodies* as different as Horace had in his eye, when he began his celebrated poem,

"Humano capiti cervicem pictor equinam
"Jungere si velit, et varias inducere plumas, &c."

Under the head of *Politics*, I should expect to be told that a negociation was on the *tapis* between the Right Hon. Lord ——, and Miss —— the great city fortune; that a dispute had taken place between the families of —— and of —— in consequence of a *card* not having been returned; that hostilities were likely to commence, and that the first invitation sent out would be construed into a declaration of war.—Under the general head of *Science*, I should expect to read accounts of boxing matches, of new invented rasor-strops, and dickies for coaches, the blows *laid in*, and the furniture *in-laid* upon scientific principles. —*Morals* might be expected to receive great illustration from the translations of German plays and *French pantomimes* by English atheists —Under the article *Divinity*, we might be told of the sale of advowsons in sporting counties, and of the horses and dogs brought to sale, the entire property of the Rev. Dr. ——, or that the new comic opera was the production of the Rev. Mr. ——, so eminent for his pastoral labours at Newmarket and in the green-room. In *Natural History*, the *vegetable* kingdom might be explained by a catalogue of the unsearchable fruits displayed at Lady ——'s dessert.—*Mineralogy* would be made very plain by paying down the dowry, stipulated to be given with the rich banker's daughter to the eldest son of the Duke of ——. And in the *Animal* kingdom, many discoveries might be announced by accounts of ponies ridden beyond their strength for a wager, and dropping down dead half an hour after it

was gained; by marriages between *pointers*, and intrigues between *canary-birds* and *parrots* of noble families.—Under the *Fine Arts* might be comprehended, details of the proceedings of the clubs in St. James's street and Pall Mall, and the biographies of the Robertsons and Hatfields of the present day.—*Letters* might embrace the proceedings at the E. O. tables.—And *Arithmetic* might be employed to calculate the profit and loss on the genteel life of a whole winter, or on the three weeks visit of a Yorkshire Baronet to town.—*Social order* would necessarily take in the wide field of *Crim. Con.* from early detection to divorce.

All this, Sir, may appear whimsical, but if you will bestow as much attention as I have done to these matters, you will not think it too extravagant that I should expect one day or other, if matters go on in their present train, exactly such a newspaper as I have sketched. Already, under the head of fashion, we have been told of crimes, which belong to the reflection of the ordinary of Newgate; and a few days ago in looking for *literary* intelligence, I read that a notorious strumpet had sported a new carriage in Bond street.

These are matters, Sir, that I hope, will not escape your observation, but when it shall so happen that you are better engaged than to attend to them, you may depend upon very accurate information from,

Your well-wisher and future correspondent,
SAMUEL SLY.

To the EDITOR of the LITERARY JOURNAL.

SIR,

THERE are few subjects more curious than the change of manners and modes of life, which take place among mankind. And though even during the short period, which a man, not very far advanced in life, may remember, these are by no means inconsiderable, as the progress is so very gradual, that it makes no strong impression; yet to a person, who has been absent from his country for many years, the contrast will be very striking.

As in this circumstance, at least, I am qualified for the task of displaying this alteration, I offer my services to you as a correspondent. An absence of near thirty years from Europe, in a situation where I had few opportunities of corresponding with England, made me entirely unacquainted with the changes which had taken place in society, and I found myself on my return almost in the situation of a person who had returned from another world. And as I was not so young when I left England, as not to have the power or the opportunity of remarking the habits of mankind, which like all early impressions, were strongly fixed in the memory; so I am not now so old as not to mix enough in society, to observe the changes that have taken place in it; nor, I trust, am I so much "*laudator temporis acti*" as not to hold the balance between the comparative merits of both periods with a tolerably even hand.

As the great features of human nature are nearly alike in all ages, allowing for the changes of Government and climate, (neither of which I think have happened in this country during the time I have been absent, though I have frequently heard it roundly asserted of both,) my observations will chiefly be confined to manners, dress, amusements, hours, and, indeed, all the general habits of society; and with these I shall trouble you occasionally, as you may find room for them in your Weekly Miscellany.

I am, Sir,
Your most obedient, humble-Servant,
SENEX.

To the EDITOR of the LITERARY JOURNAL.

SIR,

THE duties of the Officer, whose name I adopt, were in the uncorrupted days of Rome very important in their nature, and very useful to the Commonwealth.

The office of Censor more honourable, though less powerful than that of the Consuls, was exercised by the Kings in the infancy of the State, and by the Emperors after its maturity. The Virga Censoria was at all periods of the Republic an object of general dread, for the Censor was invested with power to degrade Senators from their dignity, and remove those who had misbehaved, from a more honourable to a lower tribe, "*Senatu & tribu movere.*" But the Censor's authority, not confined to public duties, or to public characters, penetrated into the privacies of domestic life; it could inquire into, and in some measure regulate the expences of individuals, it extended to the punishment of irregularities and extravagance, and it watched over the management and education of the Roman youth. In a word, in this important and dignified office, with the vigilance to observe was joined the power to correct the manners of the citizens.

If the difference in the nature of our constitution, and the character of modern manners admitted, it were devoutly to be wished, that there was established amongst us an office invested with powers similar to the Roman Censorship. But if the degeneracy of the Romans in the latter ages of the Republic rendered the Censorship comparatively of little use, there is scarcely a hope that such an authority could be established and exercised with effect in the profligacy of modern days; yet happily for the welfare of our country, and the general interest of virtue, we can boast of a blessing unknown to Roman policy and Roman manners—the Liberty of the Press, in the proper and impartial exercise of which may be found no ineffectual substitute for the authority of the Censor.

It is with pleasure, therefore, that I find that while distinct portions of the LITERARY JOURNAL will be dedicated to the abstruse researches of Science, the profound investigations of Learning, and the discussion of general Politics, some of its pages will be reserved, in which the manners of the age will be surveyed and criticized, and in which will be employed, alike, the pen of the sportive satyrist, and of the indignant moralist.

If it comes within the scope of your plan, Sir, as undoubtedly it does, to bestow praise where praise is due, this part of your duty will be easily performed, for I fear you will find but few occasions for the language of panegyric. But if you look abroad for objects of reprobation, "*quanda uberior vitiorum copia?*"

when was there witnessed a more general dissoluteness of morals? Does not the adultress glory in her shame? Does not her paramour "stand an impudent and fearless mark" for the shafts of censure? Has not the public eye with grief and indignation lately beheld an instance, in which, in order to the commission of this crime, the finest sympathies of our nature were trampled upon and insulted; the bonds of honour and of friendship burst asunder; and the bed, where conjugal affection had scarcely breathed the last sigh, was the scene of another's infamy, the grave of a matron's chastity?

"——Alea quando
Hos animos?"——

When was the spirit of Gaming, the vice of savage life and civilized society, carried to such frightful excess? has it not pressed into its service the energies of man, of bird, of beast and of reptile? The valour of man with man in brutal combat, the crested pride of the cock, the swiftness of the generous steed, and the tardiness of the creeping snail,* are all made subservient to the wants of the needy sharper, and the avarice of the sordid calculator, by the sacrifice of the possessions of the rich, and the expectations of the heir. The charms of female beauty, and the purity of female innocence† are sacrificed at the shrine of the Demon of Play, upheld but for a time by the dictates of native pride, and the principles of inherent virtue. Are not our streets crowded with the remains of what once was loveliness and virtue, the wretched victims of unhallowed lust and depraved sensuality? ‡ These, Sir, are vices of an enormous magnitude, which should be held up to public notice, and public execration; but there are foibles and follies in abundance, for which the lash of ridicule will suffice.

If such be the complexion of the manners of the age, the task which you have assumed is a serious and important duty, in the exercise of which, Sir, you must not be warped by fear or favour; to its faithful discharge you must devote yourself with an intrepidity and zeal suited to its difficulties and its utility. The pen of satyr is a sacred weapon, and in promising to wield it, you have undertaken to bend the Bow of Ulysses.

In presuming to offer my assistance in this arduous task, I forget not the humility which becomes me; I touch the pen with fear and reverence; I feel and lament my want of power; but in him who has neither talent nor leisure to do much, it is surely a false pride to decline to do little; for that little may not be without its use. Under your banner I enlist with pleasure and with confidence; for though, in general, victory depends on the skill of the Commander, the fate of the Battle has been sometimes turned by the valour of the Soldier.

CENSOR.

* Matches are frequently made between two snails, to creep over a plane of a given length covered with powdered sugar.

† A daughter's honor, and a son's fortune, were lately lost at the mother's gaming-table.

Mr. Colquhoun, on the Police of the Metropolis, states the number of females of this description to be 50,000. This account must surely be exaggerated.

POLITICS.

IN the political part of our last Number we endeavoured to draw the attention of our readers to the introduction of industry and literature into those parts of Europe, which till very lately were either altogether, or in a great measure deprived of them. It is now our intention to turn their reflection to the subsequent progress in improvement promised by these countries.

It is to be observed that they are not in the same condition with those countries, in which the improvement of Europe began. These last had no example either to direct them, or to kindle their emulation. They had to grope in the dark, and after innumerable mistakes, and the loss of much time they lighted, as it were by chance, upon something advantageous. Their industry, instead of being encouraged, and in a manner forced, by the goods of other nations coming to them, and inviting the production of something to exchange for them, had to repair abroad to seek, nay to create a market for itself. It was impossible therefore that their improvement should not be slow. The countries of Europe, into which improvement has been lately introduced, have immediately before their eyes nations advanced many degrees before them; they have only therefore to learn and to practise. They see, and feel the advantages derived by those nations from their improvements; and are stimulated, by all the force of their desire for such advantages, to imitate the improvements. They perceive themselves gradually sinking, in rank, and influence, by the improved condition of their neighbours, and pride joins its influence to urge them to exertions. But above all, the commerce of the improved states, which now fills the earth, and thrusts itself with such eagerness and activity into every corner, visits them, and holds out every thing which can either tempt, or direct their industry. The most difficult step in every thing is the first. In an especial manner is this the case in the improvement of nations. While a people remain unenlightened, the greatest improvement may be pointed out to them, and they long remain perfectly insensible of its advantages. But when they have advanced so far as to perceive the advantages, and fairly to begin the improvement, they proceed with accelerated pace. In how striking a manner has this observation been confirmed by the example of Russia during the last twenty years? We are persuaded that the circumstances of Europe at this moment justify our opinion that a similar progress will be made in almost every other unimproved part of that quarter of the world, probably a much greater improvement in several parts of it, in an equal space of time to come. It is natural that those countries, which have begun the latest, should advance the fastest, enjoying so many advantages and encouragements both from the example, and from the commerce of the rest. And in a few years all the parts of Europe will, it may be confidently predicted, much more nearly resemble one another, than they have ever done since the first of them emerged from the darkness of the middle ages.

It has been remarked how favourable to improvement is the situation of a number of states, placed in

the neighbourhood of one another, resembling one another in arts, manners, and policy, and united in a close intercourse of curiosity, and commerce. The improvements, made by each, become quickly known to all. They resemble a number of persons acting in concert for the attainment of some great end; which is thus much sooner gained than by the solitary efforts of an individual. One step in the progress is made by one man, another step is made by another man, and the end is gained, not by the slow operations of one labourer, but rapidly by the combined effects of the labours of many. Among neighbouring states too, while one is making a particular improvement, another is making a different one. Each adopts the improvement made by the other. Each therefore ameliorates its condition by two improvements instead of one. And this advantage they owe to their proximity and mutual intercourse. Sometimes two nations, as well as individuals, from a fondness for their own inventions, are ready to adopt changes, which are not amendments. A neighbouring nation, viewing the innovation with no such parental fondness, examines it with severity, and by exposing its defects, often saves the other from the dangers of a foolish enterprize. If such are the advantages gained even by two nations, from this favourable situation, how rapid must be the march of improvement among the states of Europe, when they are all opened to extensive and rapid intercourse with one another, and different parts of the great work are accomplished in each.

Symptoms of the improvement which we venture to predict, already appear, sufficient, we think, to justify very sanguine expectations. The government of every country in Europe (we do not at present attend to the countries which have lately changed their government) has improved, and that in no mean degree, in the course of a few years past, and are at present improving with increasing rapidity. They have every where become better acquanted with their true interests. Facts have now taught them all, by feeling experience, that not only their domestic splendour, but their foreign influence depend altogether upon their wealth; that the wealth of the government depends altogether upon the prosperity of the people; and that the prosperity of a people in most cases depends upon the goodness of the government. That they have improved in mildness accordingly is too evident to require any proof. We no where hear of those violent and sanguinary measures, which were formerly so frequent. That they have improved likewise in attention to the condition of their subjects is abundantly certain. How powerful have been the efforts of the courts of Russia, Prussia, and Austria, of late, to rescue the people from the power of the nobles! An attempt was made by the king of Prussia, in 1806, to equalize the taxes in his dominions of Prussia and Silesia, by laying a share of them on the nobles, who hitherto paid none; but the nobles made so violent a resistance, that he was obliged to desist. This is said to have only redoubled his efforts to favour and encourage the lower orders. The more powerful government of Russia is better able to impose its dictates. We find it therefore stripping the nobles of their peculiar and oppressive privileges in one province after another; and it was but the other day that intelligence was received of a new ukase or edict, authorizing them to be merchants, without forfeiting their rights of nobility. We cannot help too mentioning a fact, so demonstrative of encreasing wisdom, and knowledge in the court of Spain, as that stated in a French Journal a few days ago; that ships are allowed to come from all parts of Spain to Gibraltar, which never before was the case, since Gibraltar was in the hands of the English. The change of policy in many cases, with regard to the colonies of Spain, is an equal proof of the same happy improvement. In 1791, Spanish as well as foreign merchants received permission to import negro slaves and hardware into the province of Buenos-Ayres, and to export the productions of the country; and this was the first movement toward a free trade in any part of Spanish America. The effects have been most fortunate. In 1796 the value of the imports in this province, above that of any preceeding year was 1,754,891 piasters, and that of the exports to Spain alone 274,476 piasters.

There is no country in Europe, in which a purer administration of justice is not exercised than formerly. The taking of bribes is now much more disgraceful. And the extreme partiality to the great, which formerly prevailed, is every where discountenanced. It is remarkable, that in some of the countries the farthest behind in improvement, the most perfect police has been established, as in Austria. Even in Italy and Spain, where atrocious violations of law by private persons were most frequent, the security both of life and property is scarcely less than in the best regulated countries of Europe.

The improvements which have been every where made in the mode of levying the revenue, deserve particular attention; because so much of the happiness and prosperity of a people depends upon this particular. Every where, indeed, the burdens of the state are not yet laid in the proper proportion upon those who are the most able to bear them; but every where there is a strong tendency to this salutary regulation; and the attention which is paid to lay them in the least oppressive manner upon those who must bear them, has greatly alleviated the hardships of the lower orders. Uncertainty is avoided; arbitrary powers are more cautiously committed to the gatherers; and they are more strictly watched. Much more skill is acquired in the conduct of this important business, and more care is exercised to apply it.

The care of its armies is no where now imagined to be the chief business of any government. To watch the internal operations of the state, to provide every thing which can promote the prosperity of the people, to remove every thing which can obstruct it; this is understood by every government to be its great interest, as well as duty. It is no uncommon thing for a King to be more proud of having made a road, or a canal, than of having made a successful campaign. If the utility, and very often too the difficulty of the operations be considered, he has reason. How much more generally, accordingly, in every part of Europe, than at any former period, are exertions of a similar

kind made by government, to facilitate the intercourse and industry of the people!

Much skill has been acquired in conducting the business of nations. It is much better arranged, and wonderfully simplified. The different functions of government are kept more distinct. A better distribution of the business is made into different offices. The great movers are by this means enabled much more easily to see through it, and to observe what is either wanting, or corrupted; and the people too (a circumstance not to be slighted) understand much more completely what is done with them. This may be one reason why they are more attended to. It is certain that the inclination of the people has, at present, more influence upon every government in Europe, than it ever had at any former period.

We shall barely hint at another improvement of the greatest importance, the improvement in the education of the people. The happy circumstance to which we allude is the adaptation of education to the business of practical life. The original institutions for education in this quarter of the world regarded either the church or the army. Now a man is educated for that employment to which he is destined; he is educated in the first place for the general business of social life, common to all the members of the community; and in the next place, for that particular department of useful exertion, in which it is intended that he should act.

We are furnished by the letter of an ingenious, and well informed correspondent, with a very convincing proof of improvement in one part of Europe, whose prosperity cannot fail to be as gratifying to our readers as it is to us. To him therefore we willingly resign the pen.

ON THE POPULATION OF IRELAND.

To the EDITOR of the LITERARY JOURNAL.

SIR,

THE population of a country, considered with reference to its effects, is certainly one of the most important subjects that can engage the attention of those who are conversant in political affairs. The existing circumstances of the British Empire render that of Ireland peculiarly worthy of regard. Its present state seems to be but imperfectly known. Its past and probable future increase have never yet fallen under public discussion.

When I affirm that there are, at this day, upwards *of five millions* of people in Ireland; that, unless some powerful cause of depopulation occur, there will be more than *seven millions* in that country before the lapse of *twenty years*; and that a subsequent diminution of increase is highly improbable; I feel I shall afford considerable matter of surprise to many. I am however far from despairing of being able to shew that these propositions rest on satisfactory grounds.

Sir William Petty tells us, (A) that in the year 1672, there were in Ireland, 1,100,000 souls. Of this number it is not unreasonable to suppose that the population of that country fell somewhat short in the year 1700, it being very possible that the increase by generation, from the former to the latter year, failed to compensate for the great and various losses of people, occasioned by the peculiar circumstances of the civil war, and the political vexations which intervened between these two years: especially as the general circumstances of Ireland were, during that period, far from being so conducive to the multiplication of people as they have since proved. In fact, it appears by Captain South's computation, (B) the accuracy whereof has not, I believe, been impeached, that there were only 1,034,102 souls in Ireland, in the year 1695.

Taking it then for granted, that the people of Ireland, amounted, at the commencement of the last century, to about one million; I find no difficulty in affirming, that in general, they have experienced, since the year 1700, an increase of one-fifth, or thereabouts, every eleven years; and that accordingly there were about

1,200,000	inhabitants in Ireland	in 1711	2,084,384	in 1766
1,440,000		in 1722	3,581,260	in 1777
1,728,000		in 1733	4,207,512	in 1788
2,073,600	.....	in 1744	and	
2,488,320	.....	in 1755	5,157,014	in 1799

I would not, however, be understood to affirm that the increase of the people of Ireland was uniform, throughout the course of the last century. During some of the above periods, I know, it was considerably retarded by occasional emigrations. And there are grounds for suspecting that it has been much more rapid since 1777, than it was anterior to that year. I do not therefore offer the foregoing table as an accurate exhibition of the periodical numbers of people in Ireland, notwithstanding its general coincidence with the different computations that have been made; but merely as a useful guide, which certainly will not lead us *beyond* the truth, in our reasonings on the population of that country, so long as the political circumstances thereof continue in their present posture.

According to Mr. Bushe, (C) whose computation is now universally relied on, there were in 1788, 4,040,000 inhabitants in Ireland. But that gentleman's computation probably falling short of the truth, as is likely to be the case with all computations of a similar nature grounded on taxes, and as indeed he himself suspected, we may take a medium between his statement and that in the foregoing table, and safely venture to affirm that the population in Ireland, in the year 1788, stood at about 4,108,756. By the table, it appears that in 1799, there were 5,157,014 people in Ireland. And if it can be shewn that the increase of houses from 1788 to 1799 was equal (it is well known to have been vastly superior) to that from 1777 to 1778, which last Mr. Bushe tells us was 173,058, we are thence fully warranted in inferring, that there were in Ireland in 1799, 4,991,819 inhabitants. Or by taking a medium, as before, between these two statements, consonantly to Mr. Bushe's observations, we may affirm that the people of Ireland did, in 1799, amount to 5,071,416. Were it necessary to have recourse to collateral proofs in order to evince the rapid increase of the people of Ireland, a

(A) Political Anatomy of Ireland, p. 312.

(B) Abridgment of Phil. Trans. V. 3, p. 665.

(C) Essay towards ascertaining the Population of Ireland, by G. P. Bushe, Esq. published by the Royal Irish Academy.

very admissible one might be drawn from the importation of coals:

In 1727 there were imported about	70,000 tuns,
In 1767	172,000 tuns,
In 1777	340,839 tuns,
And, on an average of 3 years to 1799 to the value of	322,583*l.*

If it were urged that the gradual diminution of bog fuel rendered this increase in the importation of coals necessary; I should reply, that the collieries of Drumglass and Coal-island in the county of Tyrone; of Fethard in the county of Tipperary; those in the Queen's county; those in the county of Kilkenny; those in the county of Antrim; that in the county of Leitrim: and several other inferior ones, have been discovered since the year 1760, and that their produce of coals has been sufficient to compensate for the decrease of turf. Thus much for my first proposition.

Now if we consider that Ireland, with its present population of *more than five millions*, annually exports provisions to the amount of upwards of 3 millions sterling;—That its exportation of provisions and increase of people, instead of proceeding in an inverse ratio, have been, we may say, commensurate with each other; the former being to the amount of 1,111,551*l.* in 1770, when the number of people was about 3 millions; and, on an average of 3 years, to 1799, *to England alone*, to the amount of 2,111,153*l.* when the number of people was upwards of 5 millions;—That there is a considerable and annually increasing exportation of potatoes to the West Indies;—That the fertile soil of Ireland does not yield within one-third of that which, with skilful culture, it might be made to produce; (b)—That there is a much smaller proportion of naturally barren land in Ireland than in almost any other country in Europe; (c)—That near one million of acres of bog and mountain may yet be converted, with considerable profit, into good meadow and tillage land; (d)—And that its fisheries, if properly attended to, would furnish fifty times more than at present; (e)—I say if we duly consider these facts, together with the exertions which a crouded and rapidly increasing population never fails to occasion, we shall, no doubt, feel ourselves disposed to confess, that there are ample grounds for expecting, unless some powerful cause of depopulation occur, that the people of Ireland will continue to increase in the above-mentioned ratio; or, at least, as they appear from Mr. Bushe's computation to have done, from 1777 to 1788; and that consequently they will amount in 1810, to 7,188,116; or at least to 5,942,638; and, in 1821, to 6,426,099 or at least to 6,895,457: Or, taking a medium, as before, that there will be in Ireland, *subsisting on the produce of their own territory* 7,160,778 inhabitants, in the last-mentioned year: that is, one year after England and Ireland shall, agreeable to the Articles of Union, be placed on an equal footing in regard to contributions. Which number will give a density of population equal to about 325 persons for each square geographical mile: a density which, according to Mr. Zimmerman, exceeds that of any other country in Europe. So much for my second proposition.

Nor is it, by any means, to be expected that the population of Ireland will become nearly stationary when it reaches the last mentioned number; or even increase less rapidly after, than before. On the contrary, if the efficient causes of its past increase still continue to operate, it may be presumed, that its augmentation will be accelerated rather than retarded; as Ireland will not then probably be destitute of those various attractions, which have hitherto induced emigrations from thence to other countries: nay it will then, in all likelihood, if not long before, present such as may occasion a vast influx of strangers. Much less is it to be expected that those bad effects of a redundancy of people, which might be apprehended in almost all other countries, will ever be experienced there; it being singularly well provided against such effects by its numerous sea-ports, *(no fewer than sixty-six in a circuit of about 750 miles)* and the uncommon facilities it affords for a quick transportation of all the necessaries of life throughout its whole extent. Thus much for my last proposition.

I shall now conclude with calling the readers attention, in a particular manner, to the difference, in point of increase, between the populations of England and Ireland. According to Sir William Petty, (who seems to rely on the accuracy of his computation) there were 7,697,000 inhabitants in the former, in the year 1682. (h) According to Mr. Gregory King (who as Davenant remarks makes no positive assertion) there were about 5,500,000 in the year 1700. (i) The most prevailing opinion about the time of the Revolution seems to have been, that they fell somewhat short of 7,000,000. By the late enumeration their number appears to have been last year, 9,343,480, inclusive of 169,181 soldiers and seamen, of all descriptions; of whom, I am inclined to think, by the bye, that near one half were Scotch and Irish. According to Sir William Petty, as before observed, the inhabitants of Ireland amounted, in 1672, to 1,100,000. According to Captain South in 1695, to 1,034,102. That they now exceed 5,000,000, will not I expect be denied. Thus has a stock of about 1,000,000 of people in Ireland, been increased by generation, in about one hundred years, to upwards of five millions: which, as is evident from the export of provisions already noticed, is a much smaller number than its territory is competent to maintain. While, in the same space of time, a stock of near 7,000,000, in England, has been increased to little more than nine; which, however, seems to be a more dense population than the actual produce of its soil can support; in as much as it has been found necessary, according to Sir John Sinclair, to import 20 millions worth of corn in the last ten years.

The chief causes of this prodigious disparity in point of increase between the populations of the two islands shall be explained on a future occasion.

VIATOR.

(b) See Mr. Young's Tour, V. ii. Part ii. p. 15.
(c) Same, V. ii. part ii. p. 4. (d) Same V. ii. part ii. p. 70.
(e) Same V. ii. part ii. p. 160.

(h) Political Arithmetic, p. 104. (i) Davenant, Vol. ii. p. 177.

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[NUMBER 5.] THURSDAY, FEBRUARY 3, 1803.

General View of Physics—Continued from our last.

PHYSIOLOGY.

WE have now taken a general view of the whole physical department of science, except of *Physiology*, the last of the three grand divisions under which we classed the phænomena. Under this term are arranged all the different changes which take place in living beings, and the reciprocal effects exhibited between them and other bodies. It is the province of the physiologist to examine and classify these phænomena; and to explain them, by giving a theory of living bodies, and pointing out the cause of the peculiar powers which they possess, or what constitutes the distinction between living and inanimate beings.

By living beings, in a physiological sense, is understood in general the whole animal and vegetable creation. They are all composed of a certain number of solids, arranged in precisely the same manner in every individual of the same species; but differing considerably in different species: so that every individual belonging to the same species possesses nearly the same structure; and this is considered as the specific character, or what constitutes the essence of the species. These solids, together with the fluids which circulate through them, constitute a whole, endowed with certain powers, and capable of performing certain actions, all of which are connected with the interest of the individual itself, and even directly pointed towards that interest. This peculiar structure of living beings is called *organization*. Living beings therefore are said to be *organized*, and are thus distinguished from inanimate matter, which, possessing no such structure, is said to be unorganized.

Before we can have any adequate knowledge of the phænomena of living beings we must be acquainted with their peculiar structure: because most of their actions are connected with that structure, and even depend upon it. Hence that branch of natural history called *anatomy* is in fact the foundation of Physiology.

All the living beings with which Physiology is connected are produced from beings similar to themselves. Their organs at first are usually imperfect, but in process of time they undergo certain regular sets of changes, and at last reach their utmost state of perfection. The actions of living beings have been observed to be in some measure dependent upon the state of the organs, and their powers have been found to develope themselves in proportion as these organs approach to their perfect state. Hence it is necessary not only to be acquainted with the structure of living beings when fully developed, but likewise with the state of their organization at the instant of their production, and with the gradual changes which it undergoes till it reaches its utmost perfection; because this knowledge must throw considerable light, not only upon the nature of the powers of living beings, but also upon the connection which subsists between these powers and the structure of the being which possesses them.

The structure and growth of living beings having been ascertained, the next point is to examine and describe the different operations which go on in these beings, and the different powers which they exert. These operations and powers are denominated *functions* by physiologists. We must ascertain how far these functions vary in different species of beings, and in the same being in different periods of its existence, in order to ascertain how far the perfection of every function depends upon the perfection of the organization.

All living beings, after having existed for a certain period, cease at last to perform their functions, and to exhibit any of the phænomena which constitute the characteristic distinction of living bodies. They are then said to *die*, and ever after they possess nothing more than the properties of inanimate matter. It is necessary to examine the circumstances which accompany this remarkable change, to detect the events which are capable of occasioning it, and the alterations which these events produce on the organization. It is necessary to discover the methods which may be employed to retard this remarkable change, or to restore life after death has apparently taken place; in order if possible to ascertain the *cause* of death; because this cause, whatever it is, provided only it could be ascertained, would enable us to discover what constitutes the essential distinction between living and inanimate matter, or upon what the phænomena of life depend.

These different objects of research constitute what may be called the *particular doctrines* of Physiology, and contain the history and classification of all the phænomena of living beings. They do not so properly constitute the science of Physiology as the materials from which that science is to be reared. The science itself is properly the explanation of these phænomena, the shewing that they may be all resolved into one or more general facts, the existence of which is proved, and which sufficiently account for the phænomena. This important branch of Physiology includes under it a variety of topics, all of them however of a general nature. They may be termed the *general doctrines* of Physiology. They might perhaps be included under the three following heads, the first two of which are subordinate, and preparatory to the last, which embraces the whole subject. 1. An enumeration of the essential points of distinction between living beings and inanimate matter. 2. An enumeration of the essential points of distinction between different classes of living beings. 3. A theory of living bodies, or an explanation of all the phænomena which characterize them.

The knowledge of Physiology thus acquired may be applied with great advantage to the elucidation and

improvement of the different arts which are connected with it or depend upon it, as *medicine*, &c.

If these remarks are well founded, the science of Physiology naturally arranges itself under the following divisions:—

I. PARTICULAR DOCTRINES.

1. Structure of living beings.
2. Their production and growth.
3. Their functions.
4. Death.

II. GENERAL DOCTRINES.

1. Characteristics of living beings in general.
2. Characteristics of different classes of living beings.
3. Theory of living beings.

III. APPLICATION OF PHYSIOLOGY TO

1. Medicine.
2. Surgery.
3. Cure of the diseases of plants.
4. The art of rearing and improving animals.
5. Agriculture.

We can allow ourselves only to glance slightly at each of these topics.

I. PARTICULAR DOCTRINES.

I. *Structure.*—Anatomists have ascertained that in general the place of every living being in the scale of life may be estimated by the complexness of its structure. For the more complex the structure, the more numerous and more perfect are the powers of the being which possesses it. Of all the living beings which belong to the science of Physiology, man possesses the most complex structure, and his powers accordingly are much more varied and perfect than those of the other animals.

His body is composed of bones which give it solidity, attached to each other by ligaments, and clothed with muscles which perform all the requisite motions. It has organs for taking in food, and a stomach and alimentary canal for digesting it; a double heart for circulating the blood through the lungs which constitute the organs of respiration, and through the whole body by means of the arteries, to supply the requisite nourishment; veins for bringing it back to the heart; a vast apparatus of glands for secreting different liquids from the blood; a brain and nerves, the fountains of motion and sensation; lymphatics for carrying back to the heart that part of the blood which is not used by the glands and for removing the decayed parts of the system; and kidneys for draining off the useless liquids and throwing them out of the body. Besides all this, it has an apparatus of organs which constitute the instruments of what are denominated the five senses, namely, sight, hearing, taste, smell, touch; organs of generation; and a variety of others too well known to require particular mention.

The structure of all the mammalia bears a striking resemblance to that of man; and accordingly they must be placed next to him in the scale of being. They possess the same organs, destined to the same uses, and differing from those of man merely in form and size. This resemblance in structure however has many degrees from the ape, whose organs bear the most striking resemblance to those of man,—to the whale, whose structure resembles the human least of all the mammalia. The most obvious distinctions consist in the figure of the bones and in the size and shape of the head, the breast and abdomen, &c.

Birds are furnished with the same kind of organs that are observed in the mammalia, but there is a considerable difference in their form. The wings of birds are at a much greater distance from a perfect resemblance to the hands of man than the fore feet of quadrupeds. Still however a resemblance can be traced between them.

Amphibious animals are still farther removed than birds from the human structure. They have only a single heart, and of course their blood can circulate without passing through the lungs. Hence they are capable of suspending respiration at pleasure. Here we meet with the first instance of animals continuing their existence without the exercise of a function which is absolutely necessary for man. They exhibit another distinction no less characteristic. In man, quadrupeds and birds, the blood which circulates through the body of the animal is considerably hotter than the medium in which they live, being nearly of the temperature of 100°. Hence they are called *hot-blooded* animals. The blood which circulates in amphibious animals, on the contrary, is very little hotter than the medium in which they live. Hence they are called *cold-blooded* animals. One set of amphibia are furnished with feet like the quadrupeds, but many of them have no feet at all, and move only by gliding along the ground. In this respect their structure deviates much farther from the human than that of quadrupeds and birds. Their brain is small; and their organs of sense, if we except the eyes, seem less perfect than in the preceding classes of animals.

The greater number of amphibious animals usually inhabit the earth, though they are capable of residing under water occasionally. But fishes constantly reside under water, and therefore differ from the preceding classes of animals even in the medium in which they live. Of course they do not respire. They have only a single heart which sends the blood to the gills, an organ of vast surface, where it is exposed to the action of the water. From the gills it passes to a large artery in the back, whence it is distributed to the whole body. Thus in them the circulation is peculiar. Their blood, like the amphibia, is almost as cold as the medium in which they live. Instead of feet, or wings, they are furnished with four fins, which enable them to move through the water. They have also fins placed on the back, and others under the belly. Their organs of sense and digestion are analogous to those of hot-blooded animals.

Shell-fish, and a number of similar animals which have been arranged by Naturalists, under the name of *molusci*, rank below the class of fishes in the scale of being. They agree with fish in the medium in which for the most part they live. They have a heart, but the blood which circulates through their body is not red as in all the preceding classes of animals, but *white*. Hence they are called *white-blooded* animals. They have organs resembling the gills of fish, glands, an alimentary canal, a brain, nerves, and some organs of sense. All the preceding classes of animals have bones; but the molusci have none at all within

their body, though many of them are enveloped in a bony covering.

The insects and worms have no muscular heart, and in this respect rank lower than the molusci. Its place is supposed to be supplied by a vessel running along the back, wherein a liquid may be perceived in motion. They have no brain, but only an organ corresponding to the spinal marrow of the superior animals, swelling out into knots from which nerves issue. The air which they respire, enters by a number of vessels opening all along the sides of their bodies. Several organs of sense can be traced in many of them, as eyes, feelers, and they evidently possess smell and hearing.

The zoophites rank lowest in the scale of animals. Neither heart, nor brain, nor nerves can be traced in them. Every part of the body seems to be endowed with feeling, and capable of receiving separate nourishment. Scarcely any viscera for digestion, no circulation, no organs of sense can be discovered in them. They may be perceived entrapping and swallowing their food, and they are capable of producing beings similar to themselves.

Plants must be placed last of all in the scale of living beings. They are attached to the soil, and of course immoveable. No brain, no nerves, no organs of sensation nor perception can be traced in them. Even those organs by which they receive their food can scarcely be ascertained. No heat is perceptible, nor any direct circulation of the fluids which they contain. All animals are capable of moving at pleasure, but nothing similar to muscular fibres can be observed in plants.

Thus it appears that man possesses the most perfect structure, next in order come the other hot-blooded animals, then the cold-blooded animals, then the white-blooded animals, and last of all the zoophites, and the plants.

II. *Production and Growth.*—The apparent facility of production is inversely as the situation of the parent in the scale of being. Hence plants and zoophites are produced more easily than the more perfect animals. In many cases it is only necessary to cut them in pieces, and place the fragments in a situation proper for imbibing nourishment. In process of time every fragment becomes a perfect plant, or zoophite, exactly similar to the original whole of which it once constituted a part. Many plants produce buds, or bulbs, similar to the parent in embryo, which grow to perfection when properly planted. Several of the zoophites likewise produce a species of buds, which gradually drop off, and assume the appearance of the parent. The most common mode of production is by eggs, and seeds, in which the embryo being is enveloped, together with a quantity of nourishment. The embryo is gradually developed, and at last breaks from its cover.

The gradual changes which take place in the organs, as the young being advances to maturity, afford a fruitful source of entertainment, and furnish much useful information to the physiologist. These changes are most striking and curious in the insect tribes, though it is not from them that we are to expect facts capable of leading us to conclusions of great consequence in a physiological point of view; because we know too little of the structure and economy of these little animals.

III. *Functions.*—The functions of living beings are various, but the most important of them may be arranged under the five following heads: 1. Nutrition, 2. Secretion, 3. Generation, 4. Motion, 5. Sensation and Perception.

(1) Nutrition.—All living beings require nourishment in order to continue their existence; either because their bodies are continually wasting, and this loss must be repaired; or because their organs become unfit for performing their offices, unless occasionally renewed. The food which is taken into their bodies undergoes certain regular changes, till at last it is converted into a part of the various solids and fluids which constitute the living body; so that in fact it becomes a part of that living body. It is then said to be *assimilated*. The process of nutrition is more complicated, or at least its different stages can be more easily traced, in the more perfect animals, than in the less perfect. In man and the higher classes of animals it may be divided into four distinct operations, namely, *digestion, respiration, circulation, assimilation*, but in some of the inferior classes and in the zoophites several of these operations appear to be wanting.

Digestion is the first step towards nutrition. The food after being swallowed is thrown into the stomach, where it is reduced to a kind of pap. From the stomach it passes into the alimentary canal, in which it is gradually separated into a milky liquid called chyle, and an excrementitious part which is thrown out of the body. The chyle is taken up by a set of vessels called *lacteals*, which gradually unite into one that empties its contents into a large vein not far from the heart. The chyle mixed with blood is conveyed to the heart, and that organ immediately propels the whole into the lungs, which are the organs of respiration. They are composed of a vast number of vesicles, or cells, terminating in small tubes, which gradually uniting into one form the wind-pipe. The blood and chyle, being spread in vessels over the whole surface of these vesicles, is exposed to the air inspired. Afterwards it is sent back to the heart, and from the heart conveyed by the arteries to all parts of the body. The veins carry it back again to the heart to be sent to the lungs and circulated as before. The heart therefore is the source of circulation, and the arteries and veins the tubes through which the circulating liquid is propelled. During the circulation the chyle is converted into blood. It is from the blood that the waste of the body is supplied and the different organs repaired. In short, food before it is assimilated is converted into blood. But in what manner the assimilation takes place is unknown.

In man, quadrupeds, birds, and amphibia, all these different operations can be traced. In fishes respiration is wanting, but it has been ascertained that the circulation of the blood through the gills and its exposure during that circulation to the air dissolved in the water in which they swim answer the same purpose. Accordingly fishes cannot live in water de-

prived of air, nor in water not in contact with the atmosphere, and in which of course the air cannot be renewed. In insects and worms there is a kind of imperfect respiration. But in zoophites neither digestion, circulation, nor respiration can be traced. The food seems to be assimilated at once. The temperature of animals is connected with respiration. It is highest in those animals which respire most, as birds, and fishes, which do not respire, are cold-blooded. Insects are usually nearly as cold as the surrounding medium, if we except the bee, which being gregarious, produces and maintains a considerable heat in its hive. Some animals can want food for a long time; but in that case they are always in a state of inactivity.

(2) Secretion. In almost all living beings certain organs can be traced, which have the property of forming from the blood a number of new liquids, useful in the economy of the being which produces them. Thus the liver forms bile, &c. These organs are called *glands*, and the process is termed secretion. It is as little known as assimilation.

(3) Generation.—All beings have the property of generating their species, and are provided with organs for the purpose. But the nature of this operation is entirely unknown.

(4) Motion.—It has been observed that the muscular fibres are the organs of motion in animals. They have the property of contracting when pricked with a sharp instrument, or when affected by acrid liquids, or electricity. This property is called *irritability*. The nature of it is unknown. It disappears soon after death, and is destroyed by the application of certain substances, as electricity; and then death ensues. Into all muscular fibres nerves enter, and it has been observed that when they are cut or destroyed the muscles lose their power of moving. Hence the brain and nerves are ultimately the organs of motion. Hence all animals that are destitute of these organs must want the power of moving. On the other hand the power of moving has been considered as reason sufficient for supposing the existence of nerves and muscles. But this is certainly generalizing too much.

(5) Sensation and Perception.—Man and the higher classes of animals have organs which inform them of the existence and properties of external objects, and are possessed in a certain degree of what is called the power of thinking. It has been observed that these organs have peculiar nerves terminating in them, and that the destruction of these nerves completely annihilates the sense. Thus a disease in the optic nerve destroys vision. Hence the brain and nerves are ultimately the fountain of sensation and perception, and of course they are not to be expected where there are no brain and nerves to be traced. Therefore in plants and zoophites we can scarcely look for them; and accordingly in them no marks of such functions can be observed.

Nutrition and generation are common to all living beings, and so also in all probability is secretion. But motion and sensation exist only in perfection in the superior classes, and cannot be traced at all in some of the inferior.

IV. *Death.*—There is a limit fixed to the existence of every living being, beyond which it cannot pass. The organs seem capable of performing their functions only for that time, and then fall to pieces like a crazy machine. The being may be deprived of life, before it reaches this limit, by destroying one of its essential organs. Now the facility of such destruction is always in proportion to the perfection of the being. The less perfect vegetables may be treated very roughly without killing them, and in some of the zoophites death cannot be produced without the application of fire or something capable of destroying their texture completely. Insects may be cut in pieces, and every portion retain its life for a considerable time. But men and the superior classes of animals are destroyed more easily. Every thing which stops the circulation, or which destroys the power of motion completely, is instantly mortal. Every thing which prevents nutrition, either by altering or obstructing the nutritious fluid, gradually occasions death. But the nature of this remarkable change is at present but imperfectly known.

II. GENERAL DOCTRINES.

The greater number of the particular doctrines which we have thus slightly noticed have been examined with much industry and ingenuity by physiologists, and much curious and useful information has been the result. The subject however is far from exhausted. Many experiments remain to be made, and new light is occasionally communicated by the application of chemistry and electricity to the animal economy. We shall have occasion soon to notice some of these discoveries. But if the first department of physiology has made considerable progress, so much cannot be said for the second. Physiologists have been fonder of amusing themselves with mechanical and chemical explanations of the phænomena, founded upon extravagant suppositions and conjectures, or with metaphysical reveries totally unconnected with the phænomena, than of giving themselves the trouble to arrange the numerous facts, and to ascertain the fair deductions which ought to be made from them.

We conceive that this can only be done by fairly stating the characteristic differences which distinguish living and inanimate matter; by marking those which distinguish the different classes of living beings, if there be any such difference; and by giving a theory of living matter, by reducing the whole of the phænomena to the most general facts possible. To enumerate the characteristical distinctions between living and dead matter would carry us too far into detail. We can only make the following observations.

1. The difference between living and inanimate beings cannot consist in the mere matter as *matter*. For inanimate matter may be converted into living matter by assimilation, and on the other hand living matter is reduced to inanimate matter by the death of the animal. Hence we see that the very same matter is capable of existing, both in a living and dead state. Therefore the characteristic distinction between living and dead matter cannot consist in the matter. That is to say, the matter of which both sets of bodies are composed is precisely of the same nature.

The irritability of muscular fibres is a property to

which there is nothing similar in inanimate matter. It is an ultimate fact not hitherto explained.

The organization of living beings, and the power which they possess, in consequence, of assimilating food, of renewing their decayed parts, and of generating their species, is similar to nothing observed in inanimate matter. It is not however sufficient to account for the difference; because living beings may be destroyed without our being able to demonstrate that the organization is injured.

2. The characteristic distinction between different living beings is an equally fertile source of enquiry, and not much farther advanced.

Living beings divide themselves obviously into two classes, animals and vegetables; and there seems to be an essential difference between these classes. It is not upon the obvious distinctions that we found our conclusions, though they are sufficiently characteristic; it is upon a comparison of the animal and vegetable kingdoms, forming each into a series from the highest in the scale of being to the lowest.

We have found reason to conclude that the perfection of animals is proportional to the complexness of their structure. Accordingly we have traced a very well marked gradation, from man the most perfect and most complex in structure, to the zoophites the least perfect and least complex. But here the scale evidently terminates. For no resemblance and scarcely any thing else than a faint analogy can be traced between the most perfect vegetables and the zoophites. Trees or those plants which possess woody fibres may be considered as the most perfect in the vegetable kingdom. Their structure is obviously much more complicated, and they are much less tenacious of life than the zoophites. Indeed in every respect they bear a much more striking resemblance to the hot-blooded animals than to any other class. They possess a trunk, root and branches, divided each into pith, wood and bark. Their roots are provided with an apparatus for absorbing food; vessels carry this food through the woody fibres to the leaves, where it is digested, acted on by the air, and afterwards sent to all the different parts of the body to be assimilated to the plant. They are furnished with glands for secreting the proper liquids from the vegetable juice which is thus sent to all their parts. They have organs of generation, nor is the resemblance faint which can be traced between the seeds of plants and the eggs of animals. No vegetable fibres can indeed be traced in them; but since the food circulates through them it cannot be doubted that they possess certain organs of motion. Here then we find a species of circulation independent of a heart, and a species of motion independent of nerves.

The smaller tribes of vegetables, loosely denominated herbs, possess analogous organs; and differ chiefly from trees in being destitute of woody fibres. If many of them, especially the last of their tribes, the grasses, the organs of digestion are widely spread and very large in proportion to the bulk of the plant. Hence they are more tenacious of life and capable of enduring much rougher usage without destruction than most trees. The cacti and some other similar plants, from the peculiarity of their digestive organs, are capable like the amphibia of supporting life in situations which at first sight appear incompatible with their existence.

All these tribes of plants occupy the same rank in the vegetable kingdom that the hot-blooded animals do in the animal. The filices and mosses succeed them in the second place, and therefore fill the same rank with the cold-blooded animals. Some of the lichens and algæ follow in the third place, like the insects and worms in the animal kingdom. Last of all come the fungi and many of the algæ and lichens, which bear the same relation to the vegetable kingdom that the zoophites do to the animal. Accordingly there is a much more striking resemblance between the fungi, algæ and zoophites than between the zoophites and any of the other vegetable classes.

Thus it appears that the most perfect animals and vegetables are placed at the greatest distance from each other; and that those resemble one another most which possess the smallest number of those properties which are usually considered as the peculiar characters of animals and vegetables. Hence it is reasonable to conclude that animals and vegetables differ essentially, and that a theory of the one would not necessarily be followed by a theory of the other. Hence also all analogical reasoning from the one kingdom to the other is most likely fallacious.

3. What explanation can be given of the phænomena which distinguish living beings from inanimate matter? We have seen that the distinction does not depend upon the mere matter, nor can it be proved that it depends upon the organization or the *form* of the matter. But if it does not depend upon the matter nor upon its form, the only possible method of explaining the phænomena is to suppose that they depend upon the presence of another being, different from mere matter, or not material: and accordingly this has been the prevailing opinion in all ages. This immaterial being in man has received the name of *mind*. Man therefore is supposed to be composed of two parts, the material part which constitutes his *body* or organized system, and the immaterial part which constitutes his *mind*. This opinion, which philosophers had shown to be exceedingly probable, but which they had not been able to demonstrate completely, has received the sanction of *revelation*, and may therefore be received with confidence as an established fact. We conclude from analogy that all other animals as well as man possess minds, and that the difference between them depends not so much upon a difference in their minds, as upon the structure of their bodies. For as the organs are the instruments which the mind employs, the powers which it can exert must depend upon these organs, just as much as the work, which a tradesman can execute, depends upon the goodness of his tools.

It is reasonable also to conclude that plants likewise possess a species of *mind*; but that it differs essentially in its nature from the *mind* of animals.

The power of thinking is considered as the essential characteristic of the human mind. All animals seem to possess it in some degree or other; but vegetables show no symptoms of possessing it, and must therefore at present be considered as destitute of it.

We have now reached the utmost verge of Physical

Science; for all that follows belongs not to matter but to mind. Here therefore we drop the pen, and leave to our fellow labourers, in the science of mind, the examination of the powers and faculties which it possesses, and the contemplation of that Almighty Mind, which at first planned and formed the universe, and which still governs and directs it.

LITERATURE.

REVIEW OF BOOKS.

A Journal *of the forces which sailed from the Downs in April* 1800, *on a Secret Expedition under the command of* Lieut. Gen. Pigot, *till their arrival in* Minorca; *and continued through all the subsequent transactions of the army under the command of the* Right Hon. General Sir Ralph Abercrombie, K. B. *in the* Mediterranean *and* Egypt; *and the latter operations under the command of* Lieutenant General Lord Hutchinson, K. B. *to the Surrender of* Alexandria: *with a particular account of* Malta *during the time it was subject to the British Government. By* Æneas Anderson, *Lieut.* 40th *Reg.*—1to.

THE great importance attached to the event of the British expedition to Egypt, will undoubtedly render every account of it, written by a person actually engaged in it, acceptable to the public. Mr. Anderson modestly rates his own abilities as inadequate to the task of doing justice to his subject, but claims the merit of accuracy and fidelity in his narrative, which he has disposed in the form of a journal, containing almost a daily account of the proceedings of the army at Aboukir, Alexandria, and Cairo, from his own knowledge and observation, aided by the communications of other officers; and he presents it to his country as an authentic record of British glory.

We shall willingly pass over the maritime part of the expedition, which cannot be expected to rise much above the style of a ship's log-book, and attend our author in his account of Malta, where we find a curious benefit flowing from superstition.

P. 121.—"The streets are indebted to the wooden images of Madonas and saints for their illumination. At every corner one of these figures appears in a kind of alcove, with a glass door or lattice work to preserve it, and thus being lighted up every night, they become very useful to the inhabitants."

P. 144.—Our author's humanity induces him to wish, that the Maltese method of killing cattle by a large lancet applied behind the horns, which produces instant death, were established by law in our own country.—We understand, cattle are now slaughtered in London by a guillotine, the effect of which is probably even more instantaneous than that of the Maltese lancet.*

If the following account of a singular structure be hitherto unpublished, it deserves particular notice.

P. 156.—"A building called the Giant's Tower, the ruins of which are seen at Gozo, has an undoubted claim to the highest antiquity. The custom of forming edifices with stones of immense size, heaped on each other without cement, has been generally attributed to very remote ages; and without remarking on the pyramids of Egypt, monuments similar to the Giant's Tower are to be found in various parts of Europe.

"The building appears to have been circular in the centre, with walls branching from it in four different directions: the remains of the central part, as well as the other ruins, are composed alternately of a long flat stone placed horizontally on its edge, and of another much thicker in a perpendicular direction. There are evident marks of regular design and connection in every part of the work; and the stones are very superior, in point of size, to those of Stonehenge on Salisbury Plain."

P. 163.—Mr. Anderson's theory of the formation of Malta and the adjacent islands by a great convulsion of nature, which swept away the adjacent country, is curious: but we do not pretend to decide upon the justness of it. As it does not admit of being abridged, we must refer the reader to the work itself for it. We remember having seen a book, the name or author of which we do not at present recollect, written with an intention to prove, that the space occupied by the Mediterranean Sea was once dry land.

P. 173.—After premising that the dialect of Malta is rather a Patois than a real language, and giving the Lord's prayer as a specimen of it, Mr. Anderson says, that the language of the first inhabitants has been unavoidably lost in the frequent revolutions of the island. The Greeks drove out the Phœnicians, and destroyed their language, which was perhaps restored by the Carthaginians. But the Romans, in hatred to Carthage, certainly would not suffer the language to remain. The Goths and Vandals gave a new language to the island; and the Greeks of the lower empire, who succeeded to their power, were regarded as absolute strangers. At length the Arabs got possession of the island, and the language became Arabic with a mixture of Greek; and it has since received new additions from new masters.—We are not at present furnished with sufficient materials to enable us to go through an historical and philological investigation, capable of supporting or overturning our author's history of the revolutions of dominion and language in Malta. But we may take the liberty to observe, that, if the Greeks completely expelled the Phœnicians (for which, however, we believe there is no sufficient authority) there was no need of *destroying* their language, which certainly went with them; and that the language of a country can only be changed by the introduction of a new people, surpassing the old inhabitants in number or power, or in both. We may add, that Mr. Anderson, in asserting a double extinction of the Phœnician language by the Greeks and the Romans, sets himself (perhaps without knowing it) in opposition to Selden, Scaliger, Bochart, De Gattis, in short, a host of great names in that department of literature.

The author proceeds with a narrative of the transactions of the army in Egypt, interspersed with general orders and other official and authentic documents, and with the praises of the military and naval heroes, who rescued Egypt from the dominion of the French: and we believe, his work merits the character, he claims for it, of veracity and authenticity.

The book is embellished with some plans and several views of the forts, &c. of Malta, which, we observe, are the production of Mr. Anderson's own pencil.

* We presume that our Reviewer has actual knowledge of this fact. EDITOR.

History of the British Expedition in Egypt; *to which is subjoined a Sketch of the state of that country and its means of defence. By* Sir Robert Thomas Wilson, *Lieutenant-Colonel of Cavalry in his* Britannic Majesty's *service, and Knight of the Imperial Military Order of Maria Theresa.* 4to.

This appears to be a judicious and authentic account of the celebrated campaign in Egypt; and the historic style, in which Sir Robert delivers his narrative, is certainly more interesting than the journal-form adopted by Mr. Anderson.

As this work is mostly employed upon the military operations in Egypt, accompanied with professional observations, we shall restrict ourselves to, what we conceive to be more generally interesting as extracts, a few detached passages, wherein our author gives views of things very widely different from the ideas we have imbibed almost from our infancy, of that far-famed region. He finds no resemblance to the truth in the enchanting descriptions of the country, and of the women, given by Savary, whose work, however, he calls a charming romance. The country is disagreeable, or rather intolerable; the towns dirty, unwholesome, and inconvenient; and the women ugly and disgusting. pp. 61, 71 note.

P. 97.—" All language is insufficient to give a just idea of the misery of an Egyptian village; but those who have been in Ireland may best suppose the degree, when an Irish hut is described as a palace, in comparison to an Arab stye, for it can be called by no other name.

" Each habitation is built of mud, even the roof, and resembles in shape an oven: within is only one apartment, generally of about ten feet square. The door does not admit of a man's entering upright; but as the bottom is dug out about two feet, when in the room, an erect posture is possible. A mat, some large cans to hold water, which it is the constant occupation of the women to fetch, an alkaras or drinking pitcher, made of fine porous flag, found best in Upper Egypt, near Cunieh, and in which the water is kept very cool, a rice pan, and coffee-pot, are all the ornaments and utensils. Here then a whole family eat and sleep, without any consideration of decency or cleanliness, being in regard to the latter worse even than the beasts of the field, who naturally respect their own tenements."

But notwithstanding the squalid poverty and wretched accommodations of those people, Captain Chollet (p. 195.) " bears ample testimony to the sacredness of the Arab's pledge of fidelity, and the anxious solicitude they always manifested for the security of those who placed in them unlimited confidence: they possessed in the highest degree that honourable feeling of pride, which is impatient of suspicion, and that virtue which would prefer the sacrifice of themselves, rather than betray, by a treacherous or cowardly action, those who reposed on their faith.

" By night and by day he was the first object of their care; when he slept, a constant vigilance protected him, and awake, their principal concern was to supply his wants."

P. 145. Sir Robert says, that the French, who expected to find in Grand Cairo magnificent buildings, grand squares, sumptuous decorations, a general appearance of commercial opulence and oriental splendour, and the enjoyment of pleasures which would repay all their toils, in short, a city, which from its importance was the main object of their expedition, and was to be bestowed on them by their country as a reward for their services in Europe, were miserably disappointed, when instead of realizing those splendid visions, they found themselves involved in wretchedness from which they could not escape. He adds, that the English, instructed by the error of the French, expected little, but did not reduce their ideas low enough. The streets of Cairo are about two yards wide (as are also those of Rosetta, a town upon the coast) and the houses are built of bad brick, and very high. The palaces of the beys are large, and some of them fine buildings: they are mostly in a large square. There are square buildings divided into little shops, in which the treasures of the caravans were deposited; but none had come from Arabia since the arrival of the French. " The circumference of the city of Cairo, including the suburb of Boulac, is six miles; and yet this place, till lately, was considered in the east, and partially through Europe, as the largest capital in the world.

" The people were excessively dirty, mostly affected in their eyes; and swarms of beggars, distorted, or unnatural formed wretches, crowded the streets. The manners and customs of the inhabitants are so well delineated in the Arabian Nights Entertainments, that every one has been agreeably made acquainted with them."

P. 147.—In the evening, the only time when the heat is tolerable, the dreadful clouds of dust prevent any exercise. " To conceive the true nature of this unsufferable nuisance, the whirlwind of other countries must be imagined as occurring every evening, and filling the whole armosphere of Egypt with burning dust, and the light particles of rubbish." " Independent of this general state of the atmosphere, large pillars of dust and wind are always visible. Sometimes in the circle of the horizon twenty are to be seen, and scarcely ever fewer than four or five. Their force is very great, and the tents [are] instantly blown into the air by them."

Whatever may be the valour, or ferocity, of the Turkish armies, it is evident from our author's account of them, that the neighbouring nations need be under no apprehensions from them, while their discipline continues such as it appears to be, from the following, among many other instances.

P. 97.—" The Turks were guilty of excesses, which the Caia Bey attempting to restrain, he was hooted at, and obliged to desist."

P. 114.—In the Grand Vizir's army there " were no regularity, no trace of discipline; each corps encamped confusedly around its chieftain; horses and camels crowded all the intervals; tumbrils and cannon lay mixed among them, and the whole formed a most disgusting chaos, whilst the dirt and filth of the camp were amply sufficient to generate the plague, and every pestilential disease."

P. 141.—The army of the Captain Pacha having been formed into some degree of regularity by the instructions of the British officers, the Vizir requested that his army might enjoy the same advantage. " His Highness's troops, however, disapproved of the alteration, and on the morning the movement was to be made, fired the usual signal, a few musquet shot

through his tent, which hint was understood, and complied with immediately."

P. 225.—Egypt yields annually three crops, which by due care might be made more productive than they are. These crops, besides affording subsistence to 3,000,000 of inhabitants, can spare about a million of quarters for exportation, chiefly to Arabia and Turkey. (Did Egypt export no more corn, when it was the chief support of Rome, and afterwards of Constantinople? Was it more, or less, populous then than now? Were the people more, or less, industrious?) The revenue under the beys was 1,500,000 sterling (or ten shillings from each individual)—"Africa sends to Cairo, ivory, gold dust, gums and slaves. Arabia her spices, with the manufactories [manufactures] of Persia and India. Approached so near to Europe, Egypt must be considered as the natural emporium for the riches of three quarters of the world, and in her own soil could rival America in any of her productions."

"The condition of a slave in Egypt is very different from the miserable fate of those transported to the American colonies. The misery of the Nubian terminates the moment he becomes the property of a master. As a domestic, he is even more favoured than any other, and with the Mamelukes rises to dignity, as his qualifications entitle him The females are admitted into the houses as servants to the favourite women, where they are treated with every kindness, and where the whip never lacerates at the irritation of petulance and capricious humour. Thus even Turks may teach Christians humanity!"

If it shall be established as certain truth, "that the plague is local, occasioned by a corrupted state of [the] atmosphere, and *never introduced by contagion*," and the experience of the French physicians, and of the British and Turkish armies, as noted by our author, p. 242, go far to establish it, the universal conviction of the certainty of it will confer a most important benefit on all persons having any connection with the coasts of the Mediterranean, who have been hitherto subjected to prodigious inconvenience and loss of time and property, by the obligation of performing quarantine imposed upon all vessels from those countries.

P. 247.—Blindness is a disease very common in Egypt: about one fifth part of the people want one eye, and many want both. More than two thirds of the French army were affected with this malady; and of the English troops 100 became totally blind, and 200 lost one eye each irrecoverably.

From the whole of Sir Robert's account of Egypt, it appears to be "a land gifted with the most wonderful bounties, and at the same time accursed with the most noxious calamities of nature." p. 240.

At the end of the work there is an appendix of official documents and correspondence. The embellishments are some neat plans, and a well-engraved portrait of Sir Ralph Abercomby. But we feel the want of an index, or at least a table of contents.

This work contains much information, and, we are persuaded, also much instruction for military men. The future historian will here find many things, not contained in the official dispatches, which he may regard as equally authentic, being from the pen of an officer, who was personally concerned in, or witness to many of the transactions related by him, and had the best opportunities of information for all.

The few grammatical inaccuracies of a gentleman, who professes that he has not made composition his study, ought to be overlooked: but we would wish to see every man of liberal education guard against the use of *lay* instead of *lie*, a London vulgarism, which we observe with regret creeping into the conversation, and even writings, of many men of polite breeding.

Celebrated or important events call forth a number of relaters; and we learn from Sir Robert, (pref. pp. x. xxi.) that another publication on the subject of this expedition by Lieutenant Walsh is in a state of forwardness; and also that some philosophical works upon Egypt may be expected from English gentlemen, who have penetrated farther into Upper Egypt than any of the French literary men had ever gone.

DRAMATIC CRITICISM.

Though the primary object of a drama is to please in representation, and by that criterion its merit should chiefly be tried; yet it is now so much the custom to write the characters entirely for particular actors, that a play, at its first appearance, may be received with great applause, and yet be afterwards as little calculated to please in the hands of other performers, as in the closet. This is clearly proved by the number of dramas of every description that, 'strut and fret their hour upon the stage' with great eclat and are never heard of afterwards.

On Saturday evening a new play, (we cannot call it a comedy) written, we are informed, by Mr. Holcroft, attracted a crowded audience to Drury-lane Theatre. Its title, "Hear both Sides," sufficiently explains its moral. The principal character and on whom almost the whole of the plot and interest depend, is *Fairfax*, a lawyer, who, by his upright conduct, has escaped the ignominy too usually and undeservedly attached to his profession; until, to the exclusion of the legal heir *Headlong*, whose interests he had appeared before warmly to espouse, and who, till then, had considered him as his best friend, he becomes possessed by legacy of a large property. With this, accompanied by other circumstances unfavourable to the character of Fairfax, the play commences, and ignominy and invective are unceasingly showered on his head. In the last scene he summons together all the parties who had supposed themselves injured, restores to *Headlong* the property of which his uncle's will had deprived him, and explains the other circumstances which had conspired to tarnish the fair fame he had so long possessed. The author has endeavoured, though unsuccessfully, to keep the audience ignorant of the *denouement* to the very last. The concealment of a virtuous character for a benevolent purpose, and the unexpected discovery, would be very striking if well managed, but we cannot think it is so here. Such a character should never utter a soliloquy, as in that case he must either disclose his design to the audience, or conceal it from himself: and when Fairfax expresses to himself his indignation at the calumny he receives, it is exactly

like a player being displeased that his acting should produce the effect he intended. To come from the fable to the sentiments, we must confess they are in general just and manly; though something tinctured with that misanthropy which pervades all the writings of the author. We might say, the tone of the language, though correct, is much too high for comedy, if this piece had any claim to such a title. But the attempts at any thing like humour are very few, and those few very far from happy. We are never displeased when the comic muse occasionally steals a tear from us; but to put a few ludicrous passages into a serious play, and then call it comedy, is an insult to that species of dramatic writing.

Though there are some striking incidents, and many affecting passages in this Drama, yet it does not deserve, nor will it hold a permanent situation on the British Stage.

FOREIGN LITERATURE.

On the Present State of Literature in Russia.

THE northern parts of Europe are as yet in point of literature almost '*terræ incognitæ*,' whence

Ad nos vix tenuis perlabitur aura. VIRG.

A brief sketch or "*apperçu rapide*" of the present State of Literature in those countries will not, therefore, prove unacceptable to our readers.

Russia, unbrutalized, if we may be allowed the expression, by Peter I. and the Empress Anne, acquired under the propitious reign of Catharine II. civilization and culture with a rapidity of progress, only equalled by that of her political importance. During a period of thirty-three years, that truly great Empress not only placed her regenerated empire among the leading powers of Europe, but also fostered and nursed up the arts and sciences in her vast dominions to an unprecedented degree of improvement. Leo X, Lewis XIV, Joseph I, Gustavus III. were generous *protectors* of talent and genius; but she was the *warm friend* of literature, the zealous *patroness* of the learned. Her letters to men of literary eminence breathed not the lofty spirit of Imperial protection; they are written in the unassuming style of a commoner of the republic of letters, who addresses his *peer*. Her instructions for the committee, appointed to prepare a new code of laws, are replete with profound legislative wisdom, and her dramatic compositions, merely intended for the instruction of her grand-children, convey sentiments the most pure and refined, in a style simple, elegant, and correct. Under the benign and yet powerful influence and animating example of Catharine II. was Literature thus *created* in Russia, and attained no mean degree of culture during her glorious reign. By turns slighted, encouraged and persecuted by her immediate successor, Literature shared in the ephemeral revolutions of this calamitous period, on which commiserating tenderness for the frailties incident to human nature readily throws the veil of oblivion. Literature revived in full vigour at the auspicious dawn of the present reign; but from the short time which has since elapsed, it can hardly be expected to have made any material progress. The present state of Literature in Russia may therefore, with equal propriety and truth, be affirmed closely to approximate to that wherein it was left by the great Catharine.

At that time Russian literature was not distinguished by any originality of character, nor has it since attained any distinctive national features. The uncommon richness of the Russian language, which with peculiar felicity renders the sense of foreign idioms, will we fear prove a powerful obstruction to that attainment. On taking a survey of the present state of Literature in Russia, we find accordingly numerous translations, but few original works. Among the latter, not taking into account several ingenious treatises, inserted in the Transactions of the Imperial Society at Petersburgh there are some of distinguished eminence. Such is, for instance, the elaborate and instructive work on the Trade of Russia by *Tschulkow*, the Description of Kamtschatka by *Kratscheninikow*, and Cadmus and Harmonia, a highly finished composition of *Cheraskow*. Yet in common with all nations emerging from a state of barbarity, the Russians count among their national authors a greater number of good poets, than able writers in prose. *Lomonossow* and *Derschawin* have composed odes which possess great merit. *Ssumarokow*, whose poetical works were published in 1767, in 10 volumes in 8vo., is the author of several fables, ingeniously conceived and well told, and of a tragedy, intituled, The False Demetrius, which has experienced a very favourable reception. Russia possesses also an epic poem of no inconsiderable merit, we mean the *Russiade*, by the same *Cheraskow* whom we have already had occasion to mention. To *Wisen* his country is indebted for several satyrical productions in *Boileau's* manner, and *Dmitrew*, perhaps the most popular of all Russian poets, has published some charming compositions of the lighter species of poetry.

The works of *Euler*, *Pallas*, *Nicolai*, and other foreigners, whose literary labours have illustrated Russia, cannot for obvious reasons be classed among those which form the subject of this rapid sketch. But the measure of calling in their assistance to forward the great work of enlightening her mighty empire does infinite credit to the immortal Catharine, whom some ill-advised admirers of that unrivalled Empress mean to extol by the ridiculous appellation of the Semiramis of the North. O. P.

A new edition of Abbate George Ferrick's "*Fabulæ ab Illyrios adagiis desumtæ*," having lately fallen into our hands, we are the more induced to offer this extraordinary literary phenomenon to the attention of our readers, as we do not recollect, that the first edition, published at Ragusa in 1794, has been noticed by any English reviewer.

The Illyrians, a brave, active and industrious nation, inhabiting a ridge of mountains, and extent of coast but seldom visited by travellers, have not yet exceeded that stage of cultivation, where the leading precepts of practical wisdom are generally preserved in proverbs, and prominent national events recorded in popular songs and ballads. Instead of editing a collection of the like Illyrian proverbs and ballads, which

could not but be highly interesting, the Abbate has conceived the idea of exemplifying or illustrating 120 of the former by Latin fables, written in a manner closely resembling that of Phœdrus. The following will probably convince our readers, that the Abbate is no unsuccessful imitator of the Roman fabulist.

PROV. XXXII.

Ghdje velle nauchjesa haersose brod rasbje
Under the command of many masters a vessel will soon be lost.

Naves Duæ.

Pinus recisae Jubis in Alpibus
Quos in Gravosii parte declivi Sinus*
In genuinas doctus verterat rates faber.
Compactae eadem forma, onustae mercibus
Iisdem, aquoso pariter in Thetidis Sinu
Secunda ventis explicabant carbasa.
Cum subito Eois intonata fluctibus
Savit procella, parque monti verberat
Unda utriusque latera; jam nautae gemunt
Pavore mortis occupante pectora
Harum una ventis fluctibusque strenue
Victis advit tua portus ostia;
Excussa cursu dum vagatur altera
Ventorum arbitrio, nec tumentes sustinet
Undas, profundo mergitur ratis Salo.
Quaeris, carnis unde dispar exitus?
Uni illa, multis haec magistris paruit.

The whole country inhabited by the Illyrians and all the contiguous and neighbouring parts, Albania, Chimera, Vlanis, Moglenia, and Rumelia, are regions almost entirely unknown, and yet stored with monuments of high antiquity, decked in nature's richest bloom, and inhabited by people, a knowledge of whose manners, customs, leading principles and ideas must prove alike interesting and instructive. The learned Abbate, who resides at Ragusa, would therefore render a very meritorious service to the enlightened parts of Europe, by publishing a choice collection of the proverbs, popular songs and ballads of the nations we have just mentioned, accompanied with faithful Latin translations and notes explanatory of such allusions to local circumstances, customs, &c. as otherwise might prove unintelligible to foreigners, unacquainted with those countries.

* The harbour and dock-yard of St. Croix, about 3 miles from Ragusa.

LITERARY INTELLIGENCE.

A new regulation has been made of the National Institute of France, which brings it very near to the form of the old French Academy; of this the following are the more remarkable particulars.

Instead of being divided, as heretofore, into 3 classes, it is hereafter to be divided into 4.

1st. Class—Of the Physical and Mathematical Sciences.
2d. Class—Of the French language and French literature.
3d. Class—Of History and ancient Literature.
4th. Class—Of the Fine Arts.

The first class is divided into eleven sections, as follows:—

Mathematical Sciences.	
Geometry	6 members
Mechanics	6
Astronomy	6
Geography and Navigation	3
General Physics	6
Physical Sciences.	
Chemistry	6
Mineralogy	6
Botany	6
Rural Economy and Veterinary Art	6
Anatomy and Zoology	6
Medicine and Surgery	6

This class is to have 8 foreign associates, and may nominate 100 correspondents, among learned men both at home and abroad.

The 2d class is to be composed of 40 members.

The grand object recommended to it is the composition of a dictionary of the French language. It will examine, besides, all the important works in literature, history, and the sciences. And its criticisms will be published at least 4 times a year.

The 3d class will be composed of 40 members, and 8 foreign associates.

The learned languages and antiquities, history and all the moral and political sciences in the relation they bear to history, will be the objects of the labour and research of this class. A particular subject of its attention is to be to enrich the French language with the Greek, Latin, and Oriental authors, which have not yet been translated. And it is to take charge of the continuation of the diplomatic collections.

It may nominate 60 correspondents either foreign or national.

The fourth class, to consist of 28 members, and 8 foreign associates, is to be divided into sections in the following manner:—

Painting	10 members.
Sculpture	6
Architecture	6
Engraving	3
Music (composition)	3

It may nominate 36 correspondents.

Several rules are laid down, for the regulation of the business. The particular which chiefly deserves to be mentioned is, that no one can be elected a member, nor a secretary to any of the classes, without the approbation of the First Consul.

The following publications, just announced in France, deserve to be mentioned, because they are a novelty:

"An Abridgement of the History of Rome, in French verse, with notes."

"An Epitome of the History of England, in technical verses."

The author gives the following account of the motives of undertaking the work:

"Voltaire, during his last visit to Paris, expressed a wish, that some man of learning would devote himself to the new task of writing history in verse, and composing an elementary book, in which the facts should be classed with method, and precision. It

would not be necessary, added that celebrated man, for an author who should attempt to turn into verse, a subject so fertile as the Roman History, for example, to confine himself to verses purely technical, as I have done at the head of the Annals of the Empire; but it would be proper to hold a middle course between that plan and epic poetry, nor fear to descend, too, sometimes to the simplicity of technical writing, when that is necessary, and to intersperse the narration with instructive remarks. In short, I am persuaded, that by this method a child who should receive a moderate number of verses to learn, would remember them all his life; that his memory would find in the very measure of the verses a regulator, his young understanding a guide, which would dispose him to the study of the exact sciences; and that in all these respects it would be a useful work."

In the first place we have only the word of this author, that ever Voltaire uttered this opinion. But, if he did, it is not on that account more judicious. Such a work can be neither a history, nor a poem, and must be void of the characteristic beauties, and advantages of both. Who would load the memory of a child with a volume of verses, recounting all the facts of the Roman History? And what advantage would he derive from it, if his memory were so loaded? The furniture of the memory, by which the mind is bettered and of which it can make use whenever it has occasion, is that which is lodged, not according to the stringing together of metrical lines, but according to the habits of association which it has formed.

We have received a copy of the plan of a new Society about to be established in France, almost similar to that of the Literary Fund in England.

The objects of the intended Society, are

I. To give encouragement and rewards to men of genius, and of letters; to authors, inventors, and young men who display great talents.

II. Encouragements will be given in proportion to the merit of the individuals, to the utility of their works, the importance of their inventions, and the degree of want in which they may be found.

III. Authors who shall have defiled their pens by writings tending to corrupt public or private morality, cannot participate the advantages offered by the Society, unless they shall have repaired their errors by other Works, containing wholesome maxims and useful truths.

IV. Persons who have been reduced to indigence by their own misconduct, will not be entitled to assistance, unless they shall have given subsequent proof of better conduct.

V. If the Funds of the Society encrease so as to permit an extension of its views for the public good, it will excite to the composition of Works useful to the progress of the Sciences, to the translation of good writings, to researches, experiments, inventions, travels, &c. which have for their object the improvement of the human mind.

This Society we have reason to believe, has been suggested to the men of Letters in France, by a gentleman, who is one of the most active Members of our LITERARY FUND; and it has evidently been adopted from a view of the great benefits which have resulted from that benevolent Institution.

MANNERS.

The following very curious paper which we have received from a learned antiquary, evinces that there are few subjects, how hacknied soever by common pens, upon which ingenious research cannot throw new lights. Previous to a more serious attack which it may be expected we shall, ere long, make on the enormous increase of conjugal infidelity, a history of the honours which have been paid to, as well as the degradation of that ornament, with which ridicule is accustomed to bedeck the brow of the injured party, may furnish some amusement to our readers.

DISSERTATION

On the Exaltation and Degradation of HORNS.

Fallitur ergo Sami civis, nam corniger ille est,
Quæ non ipse facit, cornua cui sua sunt.

THE exaltation of the horn owes its origin to the practice of men in a state of nature, living upon the fruits of their own personal prowess, and reduced to expedients of hunting for subsistence. The offensive parts of animals killed in the chace became the trophies of honorable distinction, and were worn as the undoubted marks of success and victory: hence the horn, the hoof, the foot, the tusks, the fangs, and the skin appear in the dress of the primæval warrior, and serve to decorate the hero of the woods and plains. We learn, from Diodorus Siculus and Herodotus, that the Gauls built up their head-dresses with natural horns, and the spoils of birds and quadrupeds, in order to strike terror into their enemies. Many of the heathen deities were adorned after this fashion, JUPITER was *corniger*, BACCHUS was *tauriformis*, and AMMON of the Egyptians was *inolatus cornubus*. Mortals even, and founders of kingdoms, were thus distinguished; the first monarch of the Macedonian empire, borrowed his name from the single horn he wore, and was called *Caranus*; and the Persians deriving themselves down from Alexander, have the title of *Dulcarnin*, which in Arabic means *two-horned*. Horns were considered as the symbols of strength, and pre-eminence, and the budding of them meant the increase of power and glory. The foe that was vanquished, was said to be smit with the horn, that is subdued and destroyed by superior strength. When the horn was exalted, courage and honour were advanced, and displayed, and when it was defiled, all dignity was laid in the dust. In the West, as well as in the East horns were held in high honor with the Cimbri, and the ancient Germans, of which the writers of the antiquities of the earliest nations are full. The reason is that in most languages they mean height, eminence, and splendor, and as such, were dedicated to the gods, and placed on images, as on the statues of AMMON and BACCHUS; and altars were composed of them. The land of Palestine was called the horn, because it was higher than all the surrounding lands, as the horn is higher than the whole body. The parts of animals in plain and poetical language are applied by an obvious figure to the

parts of the earth, and a promontory is a head, as MAMHEAD, and MINEHEAD, and a projection of a head-land is a nose, or ness, as BOBB'S-NOSE and TOTNESS. PELOPS gave his name to the whole peninsula of Greece, which was called after him *Peloponnesus*. Thus *Brundusium* or *Brentesion* in Strabo is the stag's head, (A) since horns are the obvious images of mountainous countries. *Italy* itself is drawn out in length, and split into two horns, and the Alps running through it divides into two ridges, one passing through Calabria, and the other through the country of the Bruttii. *Cornwall* also has its name from its lessening by degrees like a horn, and dividing into promontories. The Phœnicians called it *Keren*, which in their language is a horn. The honors paid to horns, and the use of them is clearly exemplified in the series of Macedonian kings down from Alexander the Great, who commanded his statuaries to represent him with rams-horns, as the son of *Jupiter Ammon;* hence the era of Alexander, was called the era of ALEXANDER *bicorniger*, or *Dulcarnin*, (B) who is described in the Koran, and the Arabic writers as the conqueror of the horns of the east and west. Africa is called by Diodorus the *western horn*. The successors of Alexander wore the horn, and the rams-horns are found on the coins of Lysimachus, and the Ptolemies. Gods, rivers, and heroes had all horns of the same sort, JUPITER of the *ram*, PAN of the *goat*, and BACCHUS of the *bull*. The king of Persia, or of the Persians, is marked by Daniel for his *rams-horns*, and Darius as the *horned-ram* of the Persian monarchs. Petrus Chrysologus says, they put on horns to resemble the moon, and they make themselves women, as if they were tired of being men. SELEUCUS wore *bulls-horns*, which Appian explains as commemorative of Alexander, who seized a bull by the horns as he was flying from the altar. The *bulls-horns* are peculiar to SELEUCUS, since Lysimachus wore those of the ram. We read in ancient historians, that the Thracians bore *horns* on their helmets like the Gauls, or the ancient idols of the Vandals, found in Germany, of which we are in possession of undoubted specimens in certain cabinets of the curious.

From these facts, it is easy to understand that the ten horns in Daniel (C), which we are told are ten kings, point out the ten successors of Alexander, in Syria and in Egypt, who constantly wore horns. We read also in St. John, 'and upon his *horns* were ten crowns, speaking of the beast arising out of the sea.' (D) I have now taken a rapid sketch, and as it were a bird's-eye view of the region of antiquity, and crowded together as on a medal, much history, which if drawn out to its proper length, would exceed the limits allotted to enquiries in publications of various composition, and diversity of materials.

I shall now attempt to descend from my eminence, and endeavour to show that what was in early ages held in the highest esteem, and of immortal reputation, was also a sign of infamy, and became the certain mark of opprobrium, and trophy of dishonour. Here I feel myself on new ground, and although the thing be now common, and familiar, and pregnant with contempt, yet the origin of it like other researches of antiquity is obscured with mists, and enveloped in all the indistinctness of remote objects. I do not here pretend to say that Scaliger, Spanheim, and Salmasius have not already shown from an epigram of Lucilius, (F) a passage of Oneiro critic of Artemidorus, (F) and the practice of the Emperor Alexander Comnenus, (G) '*cornua ita dari quorum femina machabantur*,' but then these very passages show that the reproach at that time was a very familiar one, and the expression used indicates, according to the most consummate critic, (H) an abundance of proof, and must have been applied to a thing well known, universally believed, and long in use. These passages quoted by the learned men above, belong to the authors of the first, second and twelfth centuries after Christ; but that the degeneracy had been noted very long before the christian era, I conceive may be made to appear incontrovertibly true.

In a dialogue of Lucian between Pan and Mercury, (I) it may be seen that the ancient creed was that the sin of adultery in the father was punished with horns on the son, who is naturally visited with the images of his father's lewdness, and deformity. Whereas in after-times the punishment has been transferred by some unaccountable injustice to the innocent head of the unoffending husband, who is made to bear the ridicule of so undesirable an appendage. This is the oldest tradition of any disgrace being attached to horns, which is descended even to our own times, and still in use in some provinces by placing an enormous pair over the door of a person whose wife had been found faithless, a custom more immediately derived from the insulting practice of the Emperor Alexander Comnenus, in the 12th century, who is said to have so served all those whose nuptial beds he had himself defiled (K) It will be proper to observe that although the name of Penelope has been considered as another word for chastity, this was not always the case: the history indeed of this lady, in which there is a mixture of truth and fable, is no small confirmation of the ground-work of the custom in question, and the authority for its existence, which may be traced up to times almost as remote as the Trojan war.

We learn then from Lucian, that Pan was the son of Mercury and Penelope, and that Mercury assumed the form of a goat to possess himself of her person, and from Herodotus, that Pan was born after the Trojan war, (L) that is whilst Ulysses was yet on his travels in his way home. The chastity of any woman is at least to be suspected, who receives presents from her lovers in her lord's absence, and marries with the very man who (M) killed him, and that not long after she had followed him to his grave. You may as well undertake the defence of Judy Shrewsbury, as of such a woman, who went to bed with the Duke of Buckingham, whilst his shirt was yet wet with the blood of her husband. (N) The voice of history is

(A) Strabo, p. 282. Ed. Paris. (B) Clem. Alexandr. p. 36, Fol
(C) Daniel, c. VII, 7, 24. (D) Revelat. c. XIII, 6.
(E) Lucillius Græcorum Martialis. Brunck, p. 317, v. 2. Anthol.
(F) Artem. lib. ii. c. 2. (G) Ex Niceta.
(H) Bentley και τα λοιπα. Dissert. Phal. p. 86, 7. ed. ult.
(I) Lucian, ed. 4to. p. 269. (K) Nicetas, q. v.
(L) Euterpe, p. 146. Ed. P. Steph. (M) Telegonus.
(N) Walpole in Grammont. Granger, V. 4, p. 181.

pretty constant in declaring that Pan was the son of Penelope, as we have seen, but the scholiast on Theocritus,(o) supposes that he was called Pan because he was the joint produce of all the suitors. When Minerva asked Telemachus if he were the son of Ulysses, Telemachus replied, "my mother says I am, but I "know nothing of it, for no man can be certain who "is his father."(p) Let this be however as it may, the reason that Lucian gives for Pan's being horned, because he was born in adultery with a goat, is quite sufficient for my purpose, and it must be allowed might easily have suggested the idea of applying the mark of Pan's disgrace to all those who became the future objects of its ridicule. Ovid speaks of the bow of Ulysses in which Penelope tried the strength of her lovers, and calls it a bow of horn, perhaps with a double meaning as belonging to a cornuted man, and figurative of the condition of its master.(q)

I shall conclude this dissertation with observing that the degradation of horns has been traced up with historic certainty to Lucilius, the Greek epigrammatist, and Artemidorus, in the time of Hadnan, and Antoninus Pius, and shown to be in full force in the reign of Comnenus, and from thence downwards, it seems to have lost none of its energy. It only now remains to say one word more on the change which took place in the word horn, and converted it from being a sign of honor, into a mark of disgrace. We hazard little perhaps in affirming that there has been no change but only a different application of the same word; since the horn of disgrace and derision, if there be any truth in the allegories of antiquity, must have existed at the same time with the horn of honour and exaltation, whilst the good sense, or the bad sense of either, was determined by the object on which this or that was conferred.

Whilst the horn of dishonour marks the vague and irregular concubinage spoken of by Herodotus, as an unnatural prodigy, and its offspring reprobated by Lucian with horror and disgust; the horn of honourable distinction adorns the front of virtuous celebrity.

The same word in the same language, has different meanings, according to its use and application: and the horns given to him by the ancients who committed adultery, and to him by the moderns, who suffers it, become a trophy of derision, as much as any other mark of distinction conferred upon a person totally undeserving of it. The bays are but an insult to a bad poet; a laureled Midas is a laughing stock; and knighthood in the field of battle to a coward a source of ridicule; as incongruous and incompatible, as diamonds with a dirty shirt, or a blue riband under a thread-bare coat. Opposite significations to one and the same word are to be found in most languages, thus δίκη in Greek, and *merces* in Latin, and reward in English, mean reward, and punishment, as the recompense of good or bad actions. Thus *dun*, in Arabic is used for base, and noble; for *infra*, and *præ*: *nenk* in Persian for honour, and disgrace, as they are severally applied.

Plutarch tells us in his treatise on the extinction of oracles, that at the death of Pan, the last of the name, the oracles closed, and a voice was heard in the island of Paxos, and reported to Tiberius that the great Pan was dead; upon which the furniture of his head devolved to the prince of demons, and father of intrigues.

(o) Theocritus Idyl. v, v. 109, Schol. Idyl. i. 3. (p) Odyss. v. 215.
(q) Ov. Amorum, l. i. S. 48. corneus. τ.. κε.α II. δ. v. 109.

POLITICS.

WE have now pointed out to our readers the circumstances which, in our opinion, characterize the present state of the greater number of the countries of Europe; and have ventured to intimate some particulars of the future condition which these circumstances seem to promise.

It will be perceived that we have, in a great measure, withheld from considering the state of the two nations which are the most remarkable in the number, France, and Great Britain. It is in these two countries that civilization, and all the advantages which distinguish it, have been raised to the greatest height. These still serve as the object of imitation, and of admiration to all the other nations of Europe. To the ardour excited by the activity, and to the desires excited by the productions of those two countries must the rest be indebted for whatever uncommon progress they may exhibit in the march of improvement. In point of strength, as well as refinement, those nations are so much the foremost, that on their movements those of the other states almost entirely depend. And they, united, would form an over-balance for all the rest of Europe together. The jealousy and rivalship which they have entertained toward one another, have been the grand cause of disturbing the peace of Europe for two centuries past.

That improvement is advancing, and advancing with more rapid steps than at any former period, in these countries too, would have been disputed by none, had not the French revolution intervened. This event, on which the eyes of Europe have been turned with such keenness, and which has been productive of mischief so enormous, has penetrated the minds of many with such painful sensations, that like the inundation of the barbarians upon the Roman civilization, they conceive it to have turned back the tide of improvement; which they think is now running much faster to its ebb, than ever it did to its flow. Some attempt therefore to estimate the effects of the French revolution must necessarily precede any account of the present state, or any conjecture concerning the future state of improvement both in France, and in Britain.

This is a task, which we could have willingly declined. It is one, indeed, which we shall prosecute no further than we conceive to be absolutely necessary for the sake of the important speculations which depend upon it. The French revolution excited to such intensity the passions of mankind, that we are as yet too near it to judge of it aright; our passions are not yet returned to their natural state. Many secret facts, the causes of important trains of action, are still imperfectly, or not at all disclosed. Men will yet write for many years, with all the passions of party spirit, on all sides of the question. Whatever set of opinions a man adopts, the retainers of an opposite set

will discover that motives of the worst kind had determined his choice. And even the man whose opinions seem to aim at the merit of candour, will be accused of the affectation of moderation, and of paying court to both parties, either from inability to discern the worthlessness of the one, and the merit of the other, or from the desire to obtain the favour of both, at the expence of sincerity and truth.

For our parts, we are ready to declare, in the words of a very eminent modern philosopher, who was no patron of heedless innovation, that were we sticklers for any thing, it should be for moderation; but so far are we on this account from meanly angling for the favour of all parties in the great questions of the present day, that we fear we shall incur the disapprobation of the violent part of them all. Shall we add, that it gives us the sincerest pleasure, that the result of our most serious, and as far as we were master of our own purposes, impartial enquiries into the state of the two nations which at present divide the attention of Europe, is strongly for moderation; that these nations have every thing to hope from their agreement, and every thing to fear from their disagreement; that the grounds too of hope, and of fear on both sides, are so nearly equal, that they must be mad not to perceive their mutual interest in their mutual amity?

These opinions, if we can establish the grounds on which they rest, lead to the most agreeable consequences. They shall be laid before our readers from time to time, with the facts from which they are deduced. Enough, in our opinion, and more than enough, has been said and done, on both sides of the water, for the purpose of exasperation. It is high time, that something should be attempted for conciliation. The wise men, in both countries, should endeavour to meet on the neutral territory of candour and benevolence, and by mutual explanation, and mutual civilities, recover that good understanding, which is so advantageous to both parties.

Because of the enormities which have been perpetrated in France by the imprudent, and unfortunate dissolution of all the bands of authority, and the consequent elevation of ignorant and desperate factions, shall we conclude that it is impossible for her ever again to become an object of esteem? For us—condemning the French revolution, with all the severity which the love of mankind, and of their improvement can inspire against one of the worst enemies of both, and admiring, even to enthusiasm, our happy country, our national character, our national manners, our national wealth, and that glorious system of free and equal laws, the ultimate source of all our prosperity—we cannot forget the progress which civilization had made in France, we cannot forget the share which she had in beginning and promoting the improvement of Europe, we cannot forget the many great men which she has produced, and the great virtues which she has displayed, we cannot forget that stock of knowledge, and of sense, and of virtue, which was contained in France, when the revolution began, nor can we believe that it was all either banished from the country, or destroyed in it by that fatal event. By the fury of that calamitous period it was overpowered. But yet there are thousands, and thousands of wise, and virtuous men in France, who know their country's true interest, and are disposed to pursue it. Shall we be blamed, if we anticipate the time when their voice shall become the ruling one, and when such institutions as have raised our own country to be the foremost on the face of the earth, shall be established in that interesting portion of the globe, and enjoyed by that interesting portion of our fellow-creatures who inhabit it?

The revolution in France, and the wars to which it has given occasion, can have affected the tendency to improvement in Europe only in two ways. Either it has given the minds of the people a turn less favourable to improvement, or it has impaired the security of the different states, and rendered safety, not improvement, the great object of concern. Those two questions, What has been the influence of the French revolution upon the minds of the people? and, What has been the effect of the wars of the French Republic upon the relative situation of the different states of Europe? are the two great political problems of the present day. We shall examine them with all the accuracy of which we are capable, and shall carefully lay before our readers all the information, and documents which we consider of importance toward forming their opinions. It is evident, however, that this is a work requiring too much space and time in a periodical publication, to be carried on without intermission, or the mixture of temporary matter. Though we shall thus often need to confine this important inquiry to a part only of that division of our paper allotted to politics, it shall be our endeavour to give such a portion of the information which we have to state, as forms a sort of whole in itself, without reference to any further inquiry; and when the previous statements are thus completed, it will not be difficult for our readers to follow us in drawing the general conclusions which result from the whole.

The French revolution produced effects upon the minds of the people in other countries, by the propagation of the principles promulgated by its leaders. These are shortly expressed by the cant words of the day, *liberty* and *equality*, which implied a right in the people to destroy the government which commanded them, and divide the property of the rich. That these principles made a strong impression in Germany and in Britain, is proved by too many important facts, and is too fresh in the memory of every one to admit of any doubt. We all remember the prodigious favour with which the writings of Payne were received; and though many were desirous to read these writings, who by no means approved of them, yet this will not account for the dispersion in a few months of 15 impressions of the Rights of Man, of some thousands each. We cannot forget too the societies which were formed in every part of the country; and no man whose situation led him to any kind of intercourse with the lower orders, can be ignorant of the interest which the proceedings of those societies excited among them.

The inhabitants of many parts of Europe, were just brought to that state, when extravagant doctrines of this nature were calculated to make an impression upon

them. By the progress of commerce and refinement the feudal system was demolished, and feudal ideas and sentiments were fast wearing away. That blind, and superstitious reverence, with which the lower orders formerly regarded the higher, and which made them pay to them a willing and devoted submission, was now in a great measure gone; and no more rational principle of subordination had yet had time to establish itself in their breasts. They were not as yet sufficiently enlightened to perceive, that the very same principle which protects the rich man in his enjoyments, protects also the poor; and that a system of universal aggression makes not perhaps a less inroad upon the happiness of the poor man than it does upon that of the rich. It is exactly in the transition from the one set of principles to the other, that Europe was attacked by the doctrines of the French revolution, and it was in that situation only that they were capable of producing any effect. Had they been addressed to the inhabitants of Europe, two hundred or even one hundred years before, they would have been regarded as impious, and the respect with which the poor man was overpowered at the thought of his superior, would have made him regard as sacrilege the attempt to deprive him of his property. Should they be addressed to Europe a hundred or even fifty years hence, they would be treated with as much hatred and contempt, as the advice to every man, to rob and steal from his neighbour.

To men who have submitted to authority only from a blind and superstitious principle, and in whose minds that principle has nearly lost its force, the doctrines of the French revolution are undoubtedly alluring. The submission exacted by the rich was beginning to be a burden; how gratifying to be told that it was no longer due! The property of the rich was an object of desire; how gratifying to the poor man, to be told that part of it was his, and that the union only of him and his fellows was wanting to make good their claim! There was something even in the novelty and boldness of these doctrines, which rendered them catching. And one of the circumstances which first demonstrated the rapid circulation of opinion through Europe, was the quickness with which these principles were known in the most distant and obscure corners.

But to estimate the degree of influence, which revolutionary principles produced upon the inhabitants of foreign countries, it is necessary to attend particularly to their origin and progress, in their parent country, France. We shall in our next, lay before our readers, a brief sketch of this subject, in exact coincidence with our own ideas, from a French work of great merit, just published. The sentiments of an enlightened and truly philosophical Frenchman, in this matter, who was in the center of action, during the whole revolution, deserve peculiar regard.

NOTICE TO CORRESPONDENTS.

A Letter from an anonymous Correspondent respecting the dilapidation of Parsonage Houses, does not come within the limits of the LITERARY JOURNAL; *but with the consent of the Author it shall be published in another periodical work, for which it is more adapted.*

*** *Our sixth Number will contain an Essay on the* Characters of the Irish, *being the second of a Series which will comprise a Statistical Account of Ireland. In the Essay on the Population of that Country in the fourth Number, the reader is requested to note the following Errata:—*

Page 123, line 4, *for* 172,000 tons, *read* 172,276.
——— — 5, *for* 340,839 tons, *read* 240,893.
——— — 51, *for* 7,188,416 .... *read* 6,188,416.
——— — 52, *for* 6,446,000 .... *read* 7,426,000.

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NUMBER 6.] THURSDAY, FEBRUARY 10, 1803.

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PHYSICS.

I. *Some account of Borda.*

IT constitutes a part of the plan of the LITERARY JOURNAL, to give an account of those philosophers, who have distinguished themselves, by their exertions in the republic of letters. We consider it as a tribute due to their abilities, as the only reward for their labours which we have it in our power to bestow. And it cannot but be gratifying to our readers, to know something of those men, who have been able to add to the stock of human knowledge, or who have contributed to the rearing of that fair fabric of science, which does so much honour to human nature. These reasons afford a sufficient apology for the following account of Borda, so well known for his mathematical and mechanical skill.

Charles Borda was born in 1735, and after the necessary preliminary studies, entered, when very young, into the royal navy of France. Though his different papers in the Memoires of the French Academy soon distinguished him as a philosopher and a mathematician, and spread his reputation all over Europe, his preferment in his profession does not seem to have been rapid, for we find him only a lieutenant in 1771. In that capacity he served under the celebrated circumnavigator Bougainville on board the Flora, accompanied by Verdune de la Crenne, and Pingré, who, by order of the king of France, had undertaken to examine the coasts of Europe, Asia, Africa, and America, in order to improve the sciences of navigation and geography. These voyagers were furnished with the most complete nautical apparatus that could be procured, either in England or France, and accordingly they put in practice all the newest and most approved methods of finding the longitude. Two quarto volumes were published on their return, containing the results of all their labours, and these volumes add not a little to the reputation of Borda.

During the American war he served under D'Estaing, with the rank of rear-admiral, and in that capacity regulated the economy of the fleet with much skill. It was he who introduced into the French navy those principles of architecture, first pointed out by Euler, which produced a sameness of sailing in all the ships. The advantages with which this is attended, when vessels sail together in fleets, are of the utmost importance. According to our system, the best sailing vessel is obliged to lie to for the worst, and of consequence the whole fleet, even when carried to action, must be regulated by the very worst ship in the service. The superiority of the French vessels in sailing soon became conspicuous to all Europe; and the reputation which Borda acquired, by these successful exertions in the service of his country, gave him sufficient weight to procure the establishment of schools of naval architecture; an institution of which he may be truly termed the founder, as he not only suggested the idea, but actually drew up the plan, and laid down the rules which were to be followed in the instruction of the pupils admitted to these schools.

Borda was profoundly skilled in the science of mathematics, and he used it as the instrument for improving his own particular department. His papers in the Memoires of the French Academy, accordingly, contain much useful information on hydraulics, on the sailing of ships, on water wheels, pumps, the projection of bombs, &c. In 1787 he published his "Description and Method of using the Circle of "Reflection," in which he revived the use of the specular circles, formerly proposed by Tobias Meyer in 1752. He also employed Meyer's neglected method of measuring terrestrial angles, which he applied to astronomical observations, and with that view invented a circle of a new construction, with double moveable telescopes; an instrument lately employed in France in the mensuration of a degree of the earth's surface. He was the inventor also of the measuring rod with which the station lines were ascertained. He was a zealous promoter of the new weights and measures, lately adopted in France, and was even at the expence of publishing tables of logs, calculated according to the decimal division of the circle, which have been published in Collet's tables of logarithms.

Borda took an active part during the revolution, and in 1797 we find his name among the list of candidates for the Directorship. He died in 1799 on the 20th of February, in consequence of a dropsy, which cut him off in the 64th year of his age. Notwithstanding a heavy rain, almost the whole of his colleagues in the National Institute attended at his funeral. At the place of interment Bougainville delivered an oration in honour of the deceased.

II. *The Mammoth.*

The following short account of the skeleton of the Mammoth, one of the lost species of animals mentioned in our introductory dissertation, will probably be interesting to many of our readers.

This skeleton is at present exhibiting in London by Mr. Peale. It was dug up in the State of New York, in a morass situated near the Hudson river, and not far from Newburgh, after a very tedious, expensive, and laborious search. From the bones which were thus collected or purchased, two skeletons were formed,

models from the one being made of those bones which were wanting in the other. From a comparison of the skeleton of this enormous animal with that of the elephant, it is obvious that they belong to totally distinct animals, the differences being very considerable, especially in the bones of the head and neck. From the teeth of the Mammoth there can be little doubt that it was a carnivorous animal, and in that case it must have been the terror of the woods. The dimensions of the skeleton are as follows:—

	Ft.	Inch.
Height over the shoulders	11	0
Ditto over the hips	9	0
Length from the chin to the rump	15	0
From the point of the tusks to the end of the tail, following the curve	31	0
Length in a straight line	20	0
Width of the hips and body	5	8
Length of the under jaw	2	10
Weight of the same ..... 63½ pounds		
Width of the head	3	2
Length of the thigh-bone	3	7
Smallest circumference of the same	1	6
Length of the tibia	2	0
Length of the humerus, or large bone of the fore-leg	2	10
Largest circumference of the same	3	2½
Smallest ditto ditto	1	5
Length of the radius	2	5½
Circumference round the elbow	3	8
Length of the scapula, or shoulder-blade	3	1
Length of the longest vertebra, or back bone	2	3
Longest rib, without cartilage	4	7
Length of the first rib	2	0
Ditto of the breast-bone	4	0
Length of the tusks, defences, or horns	10	7
Circumference of one tooth or grinder	1	6½
Weight of the same ..... 4 pounds 10 ounces		
The whole skeleton weighs about .. 1000 pounds.		

Beside the mammoth, the bones of several other carnivorous animals, which seem to be at present extinct, have been found in America. Mr. Peale has brought with him a plaister cast from a bone presented last June to the Philosophical Society of Philadelphia, by Major Brown, of Kentucky: it is unquestionably a fragment of an animal of the ox kind, but of a most stupendous magnitude. It consists of a large portion of one side of the back part of the head, and part of the other; and the internal substance or pith, which was covered by the horn, twenty-one inches in circumference, and with the horn on it, must have been at least twenty-four or twenty-five. This bone was found in a creek which empties into the Ohio, some years ago, and by the proprietors supposed to have been part of the mammoth. It is impregnated with ferruginous earth, and in high preservation; and must have been broken with violence, but no one knows of any other portion of it. A few years since some large bones of an uncommon kind were found in a cave in Virginia, highly preserved by lying in earth abounding with nitre. They were sent to the Philosophical Society, and an account of them published in the fourth volume of their Transactions.

Hence it appears that four animals of enormous magnitude have formerly existed in America, perhaps at the same time, and of natures very opposite: 1st, The Mammoth, carnivorous; 2d. An animal whose graminivorous teeth, larger than, and different from, those of the elephant, are sometimes found; 3d. The great Indian bull; and, 4th, An animal probably of the sloth kind, as appears on comparison with the bones found in Virginia, and a skeleton found in South America, and preserved in the Museum at Madrid.

III. *Magnetism.*

It was for a long time supposed that iron is alone susceptible of the magnetic attractions and repulsions. But it is now known that nickel and cobalt also, even when rendered as pure as possible, may be rendered magnetic by the usual processes; and needles, formed of these metals, have been found to possess a polarity, equally powerful and permanent with needles made of steel. Mr. Chenevix indeed some time ago announced that he had procured pure nickel, not attractable by the magnet. But its low specific gravity, compared to that of pure nickel, was sufficient to raise a suspicion that his nickel was alloyed with some lighter metal. Accordingly he has since discovered that it was in fact alloyed with arsenic, a metal which has been long known to possess the curious property of destroying magnetism, even in iron. Pure nickel must still therefore be considered as magnetic.

Mr. Coulomb, to whose ingenious experiments the science of magnetism is peculiarly indebted, has very lately published a set of experiments, from which he deduced, as a conclusion, that all bodies are magnetic, as well as iron, cobalt, and nickel; but that the magnetism of these three metals is incomparably more powerful than that of any other body. This is a degree of generalization which nobody expected. It would occasion alterations in our conceptions not only of magnetism, but of some of the other physical sciences also. The importance of the subject led Mr. Coulomb to a farther examination of it, and the result has been conformable to the notions previously suggested by Dr. Young. The apparent magnetism of most bodies is owing to the iron which they contain. For the magnetic power of the different metals examined differed according to the pains employed in their purification. On the supposition that the apparent magnetism of bodies is owing to the iron which they contain, Mr. Coulomb has suggested the action of the magnet as a very useful instrument in chemical analysis. For he finds that the attractive force is directly as the quantity of iron in any mixture; and therefore we may estimate that quantity when it is so small as wholly to elude the most delicate chemical tests.

IV. *Electricity.*

The following very extraordinary dissertation was lately published in one of the Paris Journals. We give an abridgement of it to our readers as a curiosity. It is entitled, *A Refutation of the Franklinian Theory of Electricity*, by Petradura of Calvados. It consists of four paragraphs, containing the *refutation* of what the author considers as the foundation of the Franklinian theory, published, as he tells us, with the charitable intention of enlightening the philosophic world, and more especially the First Consul of France, at present ignorant enough to believe that Dr. Franklin really improved the science of electricity.

1. Franklin affirms that glass is absolutely a non-conductor. To prove the falsehood of this position, you have only to suspend a Leyden phial to the conductor of an electrical machine. On turning the machine you can draw as strong sparks from the outer coating of the phial as you could from the conductor itself. Therefore, electricity passes through glass.

2. Franklin affirms that in a charged Leyden phial, the inner surface only of the glass is charged, and that the outer surface is totally destitute of electricity. —To prove the falsehood of this assertion, attach an electrometer to the outer coating of a Leyden phial, and then suspend it to the conductor of an electrical machine; continue to turn the machine till the phial is charged, holding it all the time in one hand by the outer coating; on removing the hand, a single turn of the machine is sufficient to make the pith balls of the electrometer separate. Therefore the outer surface of the glass is charged as well as the inner.

3. Franklin denies that there are two currents of matter, one effluent, the other affluent. His assertion is false. Darken the room, work your machine, and present your finger to the knob of the conductor, and you will perceive a fluid rushing from the knob, and another from your finger to meet it, and the rays of both cross and intermix.

4. A Leyden phial or a coated plate of glass, say Franklin and his adherents, when fully charged, contains only its usual portion of electricity, but differently arranged.—The assertion is obviously absurd. It is evident that it must contain a great deal more than its natural quantity; otherwise it would never be able to produce such violent shocks, and even to strike a person down.

Thus Mr. Petradura of Calvados, with four blows of his philosophic club, has dashed out the brains of the Franklinian theory, and placed in its stead his own theory of two fluids embracing each other, which he tells us is a *palpable* matter of fact, that may be *seen* without spectacles.

This refutation puts us in mind of Marat's attempt to refute Newton's theory of Optics, and of Bernardine St. Pierre's attempt to refute the mathematical theory of the tides. It is surely unnecessary for us to make any remarks upon it. These facts, on which the author lays such stress, as far as they are facts, are familiar to every one who has dipt into the science, and so far are they from being inconsistent with the Franklinian theory, as improved by Cavendish and Æpinus, that they have been demonstrated to be consequences necessarily resulting from that theory. His two fluids embracing each other we pretend not to understand.

V. *A Composition for dyeing Oak and Pear wood of a Mahogany colour. By* M. I. C. Danneman, *jun.*

This composition is made by boiling together Brazil wood and Roman alum; and before it is applied to the wood a little potass is added to it. As a durable varnish for wood, Mr. Danneman recommends a solution of amber in oil of turpentine, mixed with a little linseed oil.

VI. *Water Mortar.*

Among the stones, on the sea-shore near Boulogne, there occurs a species, which, after being calcined and pounded, has the property of forming a very hard cement with water. This substance has been found to possess the valuable quality of resisting water; it even hardens under water, and becomes much more solid than in the open air. Many constructions made of this cement afford the most complete proof of its solidity and tenacity. The specific gravity of this mineral is between 2.04 and 2.19. According to the analysis of Guyton, it is composed of

40.3	lime
33.0	carbonic acid
11.8	oxide of iron
9.9	silica
4.4	alumina.
98.9	

It can scarcely be doubted that the valuable property of hardening under water is owing to the presence of the iron, which when mixed with clay has the well-known property of decomposing water, and rendering the whole mixture solid by its oxidation. The black oxide of manganese, when mixed with lime, gives the mortar formed the property of hardening under water, provided the lime has been sufficiently calcined. During the calcination the manganese is evidently brought to the state of brown, if not of white oxide, and of course absorbs oxygen again with avidity. Hence the new property which the mortar acquires. Water, instead of preventing, rather assists the solidification, because it is by its decomposition that it is brought about. The stone near Boulogne, just described, is a limestone, as is obvious from its analysis, composed of about 73 parts of carbonat of lime, and 27 parts of ferruginous clay.

Cavallo's *Elements of Natural or Experimental Philosophy*, of which we shall shortly give an analysis, were published on Monday last, in four volumes octavo, and promise to become a popular and valuable source of scientific instruction.

"In the course of the last 20 or 30 centuries, during which time more or less attentive observations have been made on the properties of natural bodies; various theories have been formed, and different ideas have been entertained concerning the general subject of Natural Philosophy; but the small proportion of real facts, and the vastly greater proportion of vague and unwarrantable ideas which formed those theories, rendered them always insufficient, and frequently absurd; whence confusion of ideas, and retardation of science, naturally ensued.

"The nature and the fate of those theories gradually cautioned the judicious part of the inquisitive world, and shewed them the necessity of substituting experiments and strict mathematical reasoning to the suggestions of the imagination. This rational reform, or cautious mode of proceeding, since the 16th century, has been productive of a vast number of useful discoveries; and, by its having placed the progress of science in the right channel, has enabled philosophers to trace out the principles of several of its branches, to investigate divers new subjects, and to open new paths to the inexhaustible treasures of nature."

LITERATURE.

MORAL PHILOSOPHY.

OF all the sciences to which the attention of philosophers has been directed, next to Theology, the most important is undoubtedly Moral Philosophy. The other sciences extend our knowledge of the inanimate and animal parts of the creation, enable us to enlarge the sphere of our powers, and to multiply our comforts and conveniences. But Moral Philosophy opens to our view the immaterial and rational world, at least that part of it which falls under our "mortal ken;" it explores the springs which guide the movements of men; describes the duties which arise from our frame and situation; prescribes rules for the improvement of our character, for making us useful members of society, and good men, and for enjoying happiness both in the present and future state.

Considered as a collection of precepts, Moral Philosophy is probably the most ancient of the sciences. The first appearance which it assumed was that of aphorisms, or short unconnected moral sentences. Such are a great part of the proverbs of Solomon, and the sayings of the wise men of Greece. It was the first of the sciences too which was thrown into something like a systematic form. It was taught in this form by Aristotle, Plato and Zeno. Among the Romans, Cicero has given a very beautiful system of morals in his valuable and elegant work *De Officiis*. Since the revival of learning in Europe we have perhaps had more systems of morality, both speculative and practical, than of any other science; but of all that we have seen we know none, as a system of duty, equal to an old book which we are sorry is not more generally read, The Whole Duty of Man.

Most of the systems of moral philosophy embrace a great many articles which are comprehended under intellectual philosophy, and many too which belong more properly to political philosophy and jurisprudence.

Systems of moral philosophy differ so much from one another, in their arrangement as well as in the matter which they contain, that it seems to be impossible to condense them in such a way as to exhibit the present state of that science. We know only one system from which the author has excluded all extraneous questions, and confined himself entirely within the province of moral philosophy. This system is delineated by Dr. Reid in his book on the Active Powers. We shall beg leave to make a few alterations.

We must begin with regretting, as well as with expressing our surprize, that we have never seen a definition of moral philosophy which appears to us to mark with precision the outlines of the science. We shall not at present review the definitions which have been commonly adopted, but shall offer our own with due deference to those who would prefer another.

'Moral Philosophy, then, we define to be that science which enumerates and classes the active principles of man, determines the purposes for which each of them is fitted, and shews how they ought to be balanced so as to enable us to attain the highest degree of wisdom, virtue and happiness, of which our nature is capable in this world.' It is scarcely necessary, we presume, to add that this science, though we are persuaded that it coincides exactly with the christian morality, yet does not borrow the aid of revelation, but is founded upon an examination of human nature.

Our first business is to class those principles which excite man to action. These may be arranged under the two general heads of *animal*, and *rational* principles.

The animal principles are such as are necessary to man as a living creature. These are the appetites, and the principle of self-defence. These principles are common to most animals. They agree in two things. 1. They are accompanied by an uneasy feeling. 2. They are not constant, but periodical or occasional.

The appetites are three, hunger, thirst, and the sexual appetite. Hunger is an appetite consisting of an uneasy feeling and a desire to eat. When the desire is appeased the uneasiness goes away. The same remark applies to the other appetites. The principle of self-defence is attended with an uneasy feeling, and a desire to repel without deliberation every attack that is made upon us. Most animals have weapons of defence which they employ when attacked. Without such a principle, which leads us to act with instantaneous violence, our lives would be in greater danger.

The use of these principles is very evident. Two of the appetites, and the principle of self-defence, are intended for the preservation of the individual, and the third for the preservation of the species. Hunger and thirst impel us to seek that nourishment which is necessary to support life; and the principle of self-defence rouses us to ward off instinctively those aggressions that threaten our life.

The appetites grow stronger by excessive indulgence. They may be pampered into gluttony, epicurism, drunkenness, and debauchery. The principle of self-defence, when often excited by trifling causes, may grow into a habit of passionateness.

The virtues, which consist in the right management of the animal principles, are temperance, chastity, moderation.

The Rational Principles are peculiar to man; or, if not denied to some of the more sagacious of the animal tribes, they are communicated in a very faint degree; some of these certainly in no degree at all. They are the desires, affections, and the moral principles.

The desires differ from the principles which we have already described, in this, that they are not periodical, nor occasional, but constant.

They are attended with something, at least analogous to an uneasy feeling, which stimulates us to exert ourselves for their gratification. They are the leading principles which constitute the characters of men. The most remarkable of them are,

The Desire of Knowledge,
——————Esteem or Approbation,
——————Attainments still higher than those actually possessed,
——————Superiority,
——————Happiness.

I. *The desire of knowledge* appears to be a universal principle, pervading all men, and showing itself in every period of life, from infancy to old age. It is always strong in infancy and childhood. Every new object attracts the attention of a child. He views, he handles, he examines every thing, that comes within his reach; he places it in different lights, in different positions, in order to discover its qualities. His curiosity to know the structure of his toys makes him break them in pieces. When once he can distinguish a number of objects he is anxious to know their names and their uses; and enquires into the causes of the changes which fall under his observation.

In manhood it assumes a thousand aspects, for it combines with other active principles, and is directed to every class of objects and events. Men generally apply to that species of knowledge in which they are most successful, and this will depend upon the relative strength of their intellectual faculties. It is often subordinate to the desires of esteem and of superiority, and then that knowledge is cultivated which will gain the highest reputation and power. It is also not unfrequently under the influence of the love of wealth, which prompts men to pursue that knowledge which will promote the acquisition of a fortune. There are indeed few principles to which it is not made subservient; yet still it must be allowed to be an ultimate original principle. We desire knowledge on its own account, as well as from the pleasure of communicating it, or from the advantage which it may bring. Were a man banished to some desolate island, and to find by any accident a parcel of news-papers, giving an account of what had passed in his own country from the time of his departure, what delightful emotions would he not feel? If it were not an ultimate principle, why should there be pleasure and honour in communicating knowledge? If there were not a pleasure in receiving knowledge there would be none in communicating it.

If we enquire into the causes which lead men to pursue particular paths of knowledge, they will be found to be in general a train of accidents, whose connection cannot be traced. Sometimes that path depends upon the strength of some one or two of the intellectual powers, sometimes upon the company with which we associate, sometimes upon the certainty or hope of excelling in one branch rather than in another.

The desire of knowledge not unfrequently is directed to trifles, and sometimes degenerates into impertinent curiosity.

This desire is a most important principle; it is the source of all those valuable stores of ideas which are daily accumulating, for promoting the virtue and happiness of man.

II. *The desire of esteem and approbation* is a universal and original principle of action. We court the esteem of our equals and associates; we are flattered with the condescension of the great, and pleased with the approbation of the beggar. Our desire of esteem appears in the anxiety which we feel to know what is said of us in our absence, by our friends, our acquaintance, and even our enemies. Nor is it the esteem of friends only we desire; we are solicitous to deserve and obtain the approbation of strangers. We wish to be esteemed even when all those who knew us have gone to their fathers. Hence the desire of posthumous fame.

This desire is not confined to the good and worthy. The highwayman is eager to be admired by his companions; and the most despotic and barbarous tyrant that ever the world saw, whatever he might say to the contrary, would have preferred the love to the hatred of mankind.

As to the qualities for which we desire to be esteemed, they will depend upon the opinions of those with whom we associate. If we associate with men who place a high value on talents and learning, we wish to be thought men of genius, and learned. If we mingle with the pious and devout, piety and devotion become the objects for which we would be valued. We even desire to be praised and admired for things external, for the elegance of our dress, splendour of our furniture and equipage, for our rank, for the antiquity of our family, and for the fortune which we possess.

Rather than not obtain praise, mean, dishonourable, and even vicious methods are employed. Some men praise others that they may be praised in their turn; some censure themselves that they may be contradicted. We bribe men to praise us by presents and entertainments; and some assume the garb of hypocrisy to cheat men to applaud them.

The desire of esteem is a very powerful and very important part of our moral nature. When properly directed, and kept in that subordinate station which belongs to it, it leads to the most valuable accomplishments. It rouses and invigorates our intellectual operations, and urges us to the formation and execution of plans for increasing useful knowledge, and for advancing the comfort, the enjoyment, the virtue, and happiness of mankind.

III. *The desire of possessing something higher than the sum of our present attainments*, is a principle of action which has much influence. We are never satisfied with our present condition. We wish to have more knowledge, more esteem, more power, more riches, and to get rid of whatever is disagreeable. Rather than remain as we are we chuse to risk the advantages we have gained, to expose ourselves to new difficulties and new hardships. Prompted by this desire, our imagination exerts itself to form new plans for aggrandizing ourselves; and we encounter difficulties with pleasure.

No man, we believe, was ever so fully satisfied with his attainments and acquisitions as to sit down contented, without feeling a desire to form new plans, and gain new ends. The miser is not satisfied with any quantity of wealth, which he may have hoarded up, but is as eager to add to the heap as if still labouring for his support.

This desire when directed to proper ends, naturally leads us to the acquirement of knowledge and virtue and to the increase of our happiness.

IV. *The desire of superiority* is different from that which has just been described. The one arises from comparing our present situation with our wishes and hopes: the other consists in comparing our attain-

ments and situation with those of our equals, and is better known by the name of emulation. This desire does not lead us to aspire at superiority over those who are placed beyond our reach, but only over those whom we consider as equals in talents, in profession, in wealth, in rank, in reputation. It urges us to exertion, and is followed with uneasiness if we are surpassed. It appears among children at their sports, who vie with each other in swiftness, in strength, and dexterity. Ladies endeavour to rival one another in dress, in gracefulness, in splendour. Orators contend in eloquence, and artists in ingenuity. Emulation appears in the army, in the cabinet, at the bar, in the pulpit, in the senate, and in every situation of common life.

Dr. Reid has called this principle a malevolent affection; but it is not always, nor necessarily accompanied with ill-will against those who surpass us; for many have contended with the utmost ardour, and yet have acted in the fairest and most honourable manner. We do not however deny that it very often degenerates into envy. It was the principle which influenced Julius Cæsar, who by his own acknowledgment, would have aspired at the first rank, even if he had been confined to a small village.

This principle, when united with the desire of knowledge, of esteem, and with honourable ambition, is one of the most important of all the active principles. If we contend only in things that are valuable, and use only fair and virtuous methods, this principle cannot be too strong. It leads us to exert our whole mind, and to pursue plans steadily and ardently, till they be accomplished.

When directed to trifles, it makes men ridiculous nd contemptible. When we wish to pull down those whom we cannot excel, it leads to envy, detraction, and the worst of vices. When we value those things too highly by which we are distingnished, or think ourselves distinguished above others, we give place to pride, which produces arrogance, and contemptuous behaviour.

V. *The desire of happiness*, which is sometimes called self-love, ought, we think, to come in here. Dr. Reid indeed has followed a different order. He has classed the desires and affections under the title of animal principles, and the desire of happiness, or as he terms it 'a regard to our good upon the whole,' under the title of rational principles. Why he has done so, we cannot pretend to say. We would ask, is not the desire of esteem as much a rational principle as the desire of happiness? We do not see any reason why the desire of happiness should be placed in a higher class than that of knowledge or of esteem.

In order to direct the desire of knowledge, it is necessary that we should consider what knowledge is useful; to direct the desire of esteem it is requisite that we should value the opinion only of the wise and good; and in order to guide the desire of happiness, we ought accurately to ascertain in what happiness consists. We see then that the proper management of these desires depends upon the justness of our opinions respecting the proper objects of them.

The desire of happiness appears at a very early period. If a child burn his finger in catching hold of a candle, he will not repeat the experiment. Why? Because we remember nothing so well as pains and pleasures; and the evidence of experience suggests to a child that what has burnt him once will burn him again. And does not a solicitude to avoid pain arise from a desire of happiness? As we grow up, our scene of action extends, and new pains and new pleasures are experienced by us. Observation also enables us to discover that certain habits and acquirements generally lead to happiness, and the opposite to misery. When we steadily endeavour to acquire the one, and to shun the other, our desire of happiness is said to be well founded.

The desire of happiness produces the avarice of the miser. For perceiving that riches are one of the means by which almost every thing desirable may be procured, he pursues them with avidity. But in the eagerness of pursuit he mistakes the means for the end, and seeks after wealth, not as a mean of happiness, but as happiness itself.

The desire of happiness leads to the virtues of prudence, temperance and fortitude. It will also, in an enlightened mind, lead to the exercise of the benevolent affections.

This principle, if considered as the leading principle of men, is defective. Few men are qualified to determine what is their good upon the whole. If it were the governing principle, whence could arise those generous and disinterested feelings to our neighbours which we so highly applaud? Never surely from self-love. If self-love were our only guide to happiness it would fill our minds with fear, anxiety and doubt; and would not produce those noble and animating emotions which we feel when we are satisfied that we have not consulted our own interest, but sacrificed much to the good of others; in short, that we have acted right, performed our duty, and obtained the applause of *the man within us*, a good conscience.

By *Affections*, we mean those active principles which lead us to do good to persons who have done us good, or who stand in need of our assistance, or to do evil to those who have done evil.

These we may arrange under the following heads:—
Affections of parents to children.
——— to the distressed, or compassion.
——— to benefactors, or gratitude.
——— to those who have injured us, resentment.
——— to the wise and good, admiration, &c.
——— to the bad, indignation.
——— to our country, love, patriotism.

1. *Paternal affection* is a very strong and disinterested principle. "How common is it," says Dr. Reid, "to see a young woman, in the gayest period of life, who has spent her days in mirth, and her nights in profound sleep, without solicitude or care, at once transformed into the careful, the watchful nurse of her dear infant; doing nothing by day but gazing on it, and serving it in the meanest office; by night, depriving herself of sound sleep for months, that it may be safe in her arms. Forgetful of herself, her whole care is centered in this little object. The parental affection in the different sexes is exactly adapted to the office assigned to each. The father would make an awkward nurse to a new-born child, and the mother too indulgent a guardian. But

both act with propriety and grace in their proper sphere."

2. *Compassion* is the affection which we feel for the distressed, whether the distress arise from poverty, disease, or the loss of relations. It is an uneasiness or painful emotion which can only be removed by bestowing such assistance as may contribute to give relief to the person in distress. Compassion disposes a man to be the friend and brother of those who are unhappy: and there is no principle in human nature more amiable. When united with the desire of superiority, it produces generosity and magnanimity.

3. *Gratitude* is the affection which we feel to benefactors, to persons who have done us favours which they were not bound by justice alone to confer, or who have forborne to do us mischief which justice would have permitted them to inflict. It is produced therefore by the compassion or generosity of another. This affection is evidently intended to be a rewarder, and thus to encourage kindness and liberality.

4. Since we have admitted among the affections gratitude, or the feeling we have toward those who have done us favours, we must also admit the sentiment which we feel against those who have done us injuries. It impels us to punish the person who has injured us in proportion to the injury received; and therefore lays the foundation of public punishments for crimes. When resentment becomes strong it is the most violent of all our active principles and is called *passion*, *anger*, *revenge*.

5. When we contemplate the character of a wise and good man we feel *esteem* and *love*. When wisdom and goodness are perfect, as in the Deity, the emotion is called veneration. Friendship is not a distinct, original affection, but an attachment, founded upon esteem for qualities which we highly value and ardently love. The affection between the sexes is made up of various principles. It is friendship modified.

6. As the contemplation of the character of the wise and good produces esteem and love; the character of the bad raises *indignation*, *disgust* and *horror*.

7. *Patriotism*, or love to our country, is an affection conspicuous in the history of the world. It seems to be that desire of superiority, which we feel for ourselves, extended to our country. We wish our country to be superior to all others in knowledge, in arts and sciences, in manufactures and commerce, in arms, &c. It is frequently the cause of wars between different nations.

We are now come to the most important and elevated of all the principles of the human mind, that which has been distinguished by the various names of Conscience, Sense of Duty, Moral Sense, and Moral Faculty. All the attributes of mind which we have hitherto described, are either intellectual operations on the one part, or principles which impel us to action on the other; but the Moral Sense is both an intellectual and an active principle. When this principle is exercised, we not only have notions which no other principle could have given us, but we feel a desire, to do certain actions. To enable us to give a distinct view of this principle, let us consider what our moral feelings would be in a particular case of moral perception.

Let us suppose that we have seen two men engaged in fight, and that the aggressor is killed. If we are satisfied that the other acted in self-defence, we do not condemn nor hate him: but if a man attack another who has done him no wrong, and put him to death, we immediately feel emotions of horror and indignation; we condemn the action as wrong, and the murderers as deserving punishment. If we have witnessed the public execution of a murderer, we do not condemn the jury who found the criminal guilty, nor the judge who passed sentence, nor the executioner who is the immediate cause of his death. Now what is the reason that we feel and think so differently in these three cases? In the first and last examples we do not condemn the man who really put the other to death, because in one instance it was done from self-defence, and in the other by public authority. It is the second case only that rouses our feelings. An immoral action consists of four parts, the motive, the intention, the means or external action, and the consequences. The consequence in the three cases mentioned is the same; it is death. The external action by which this consequence was produced might also be the same; stabbing with a sword, shooting with a pistol, &c. The intention too might be the same, to produce death. Hence we see that the immorality of an action cannot be discovered from knowing the intention, the external action, and the consequences: but let us consider the motives, these are of a different nature. In the first case, the motive was self-defence, in the second it was malice, in the third it was duty. We may conclude then, that at least with respect to the action of putting a man to death, the criminality lies in the motive. Till we discover the motive, the operation of the moral principle does not take place. In the contemplation of murder this operation consists of three parts:—1. It is determined that the motive is wrong. 2. That the murderer is the object of detestation. 3. That he deserves punishment. When the murderer is sensible of his criminality, he also, 1. perceives the motive to be wrong; 2. he feels the emotion of grief for the evil which he has done, and resentment against himself; 3. he is sensible that he deserves punishment, and trembles with the fear of being discovered.

If we were to analyze all crimes and good actions in this manner, we should easily see whether the moral principle be the foundation of virtue. This however would be improper in a paper which is intended only as an outline of Moral Philosophy. But it would certainly be the most effectual way to settle the dispute respecting the foundation of moral obligation.

We believe there are near a dozen of different theories which have been formed for determining the source of moral obligation. We will just mention them and add the names of those who created or supported them.

1. Virtue is agreeable to the will of God, *Dr. Warburton.*

2. It is agreeable to the eternal fitness of things. *Dr. Clarke.*

3. It is the dictate of the moral sense. *Dr. Hutcheson.*

4. It is the impulse of a sensation. *Ellis.*

5. It is agreeable to right reason. *Burlamaqui.*

6. It is agreeable to the truth of things. *Woolaston.*

7. Our understanding represents some actions as right, some as wrong. *Cudworth, Butler, Price.*

8. It is founded upon the dictates of sympathy. *Fr. Adam Smith.*

9. It is conducive to general utility. *Hume.*

10. It is conducive in the whole to the greatest good of the individual. *Cumberland, Dr. Johnson.*

11. It depends upon opinion. *Mandeville.*

It is evident that several of these differ from one another only in appearance, not in reality. We shall add an observation which to some may appear paradoxical. It is this, that the moral principle can neither be improved nor corrupted. We may indeed by passions and self-deceit prevent the exercise of this principle; but when we allow ourselves to form a clear and strong conception of a virtuous and vicious action, we cannot but perceive the one to be right and to deserve reward, the other to be wrong and to deserve punishment.

We have now enumerated and classed the most important and active principles. The intention and use of all, excepting the moral principle, is evidently to conduct us simply to certain ends, without regard to any thing farther; the moral principle again is formed to teach us what ends are good, what bad, and to distinguish between the lawful and unjust means of arriving at the good ends. It is therefore supreme.

The next thing which would be proper to be done in this science is to trace all the virtues and vices to the natural principles from which they are derived, and to lay down rules for correcting vicious habits and for strengthening the different virtues. This we shall defer at present, lest it should lead us into too extensive a field.

LITERARY INTELLIGENCE.

Captain Leake of the Artillery, Captain Squire of the Engineers, Lieutenant Dundas of the royal Volunteers and Lieutenant Desude of the Queen's German regiment have done more for the discovery of the inscription on Pompey's Pillar, than Pocock, Norden, Granger, Savary, or Denon. The letters they have found on the column of Alexandria, are these.

ΤΟΝ ΤΙΜΙΩΤΑΤΟΝ ΑΥΤΟΚΡΑΤΟΡΑ
ΤΟΝ ΠΟΛΙΟΥΧΟΝ ΑΛΕΞΑΝΔΡΕΙΑΣ
ΔΙΟΚΛΗΤΙΑΝΟΝ ΤΟΝ ΣΕΒΑΣΤΟΝ
ΠΟΝΤΙΟΣ ΕΠΑΡΧΟΣ ΑΙΓΥΠΤΟΥ
ΠΡΟΣΚΥΝΕΙ

Translation.—"Pompey the Prefect of Egypt, venerates the august and most revered Emperor Diocletian."

The scored letters have been restored by Mr. Hayter, now at Naples. The last four letters of the tenth word, it is evident on inspection only might as well have been filled with ΜΙΠΙΟΣ as ΝΤΙΟΣ, and then we should see, that the name originally given to this beautiful column was Pompey, and though not of the great Roman general, at least of the little Egyptian Prefect. It is well known that both ancient and modern monuments are oftener called after the names of those who set them up, than by the names of those to whom they are erected.

We find it announced in a French periodical publication, "that Professor Jaubert too has recently brought from Alexandria the copy of a Greek inscription, which appears calculated to fix in a precise manner the epoch at which the pillar, known by the name of Pompey's pillar, was raised. This copy has been submitted to the inspection of the National Institute."

Mr. Clark of Trinity College, Cambridge, has brought home from a convent in the island of Patmos, three manuscripts, one of a dictionary in Greek, by Cyril of Jerusalem, another of a treatise on Musick, and a third of all Plato's works, except the politics, with references to three dialogues, that have never reached us, and quotations from plays of Sophocles of which we have no fragments. The Colophon of this curious MSS. is as follows:

ΕΓΡΑΦΗ ΧΕΙΡΙ ΙΩ ΚΑΛΛΙΓΡΑΦΟΥ
ΕΥΤΥΧΩΣ ΑΡΕΘΑΙ ΔΙΑΚΟΝΩΙ ΠΑΤΡΕΙ
ΝΟΜΙΣΜΑΤΩΝ ΒΥΖΑΝΤΙΩΝ ΔΕΚΑΚΑΙ
ΤΡΙΩΝ ΙΝΔΙΚΤΙΩΝ ΙΔ ΕΤΕΙ ΚΟΣΜΟΥ
ΣΤΥΔ ΒΑΣΙΛΕΥΟΝΤΟΣ ΛΕΟΝΤΙΟΥ
ΒΑΣΙΛΕΟΥ ΑΕΙΜΝΗΣΤΟΥ

This MS. was written by Joannes, Caligraphist, for Arethas Deacon of Patræ, at the price of thirteen Byzantian coins, in the 14th year of the Indiction, and the 6104th of the world, (that is the 896th of the christian era) in the reign of the ever memorable Leo Basilius.

An admirable proof of taste for the sciences, and zeal for their propagation, has been shown at Newcastle. After the example of some other large and flourishing cities in the kingdom, as Manchester for instance, they had formed a literary and philosophical society, and this society has just now come to the resolution of erecting a lectureship on natural philosophy. We hope that they will not confine this improvement to natural philosophy, but extend it as they find ability to every other branch of useful knowledge; and that their example will be followed by every other populous place in the kingdom which is not the seat of any of the national seminaries. How many young men are employed in all our great trading and manufacturing towns, who have got a partial education, which they would be most desirous to complete, could they accomplish it in the places where their business is carried on? We can hardly conceive a greater improvement, than the erection of lectureships, after this example of Newcastle, in Manchester, in Liverpool, Birmingham, &c. would be. By this means not only the sons, but the clerks of our manufacturers and traders would receive an education, from which the greater part of them are at present debarred. How advantageous it is, that this order of men, now of so much power in this country, should be an enlightened order, is surely too obvious to need illustration. From their superior intercourse with the lower

orders, whom they employ, their attainments must have the greatest influence upon the most numerous class of the community. We should think that even in London, institutions of a similar nature, near the great scene of business, would be an object well worthy of the attention of the leaders in trade, many of whom are so eminently distinguished for liberal and noble views. For the sake of their sons, who are to succeed to their fortunes, and of their clerks, who in general succeed to their business, it is an object highly to be desired. A classical education may be got in great perfection in London; and, to the honour of the trading part of the metropolis it ought to be spoken, they fall behind none of their fellow-citizens in anxiety to bestow it upon their children. But there is no such thing as a scientific education to be procured in London. Yet surely the advantage of this is infinitely superior to the other. A concomitant benefit, of infinite importance, could hardly fail to be obtained; the spare time of the young men engaged in business might thus be agreeably and usefully employed, and they saved from that debauchery which at present prevails among them in so destructive a degree.

We are happy to announce improvements in other countries, as well as our own.

The following are important encouragements to the promotion of learning and art, which have been immediately given in Russia.

The Emperor has granted to the Society of Arts, at Petersburg, a permanent revenue of 140,000 rubles, instead of 60,000, which it formerly had.

According to a new plan, presented by the commission of public institutions, there are to be Universities in the empire of Russia, not only at Petersburg, Moscow, and Dorpat, but in two or three other great cities of the empire, and they are to be put on the same footing with those in Germany. Nor are the inferior places to be neglected; colleges are to be appointed in every city of the government, which will extend learning into every corner of the empire. And what we regard as of the greatest consequence of all, because the benefit extends to the largest portion of the community, schools are to be erected in every village. This example of attention to the instruction of the lower orders well deserves the regard of some of the most enlightened nations of Europe, where that important object is very shamefully neglected.

The Duke of Somerset, as President of the "Society for establishing a Literary Fund," has received (through the hands of Dr. Macnab) a letter from the National Institute of Paris, signed by the Abbé Sicard their secretary, paying the highest compliments to that establishment, and returning thanks for the present of "The Claims of Literature."

We are sorry to state, that the venerable La Harpe, the author of the Cours de Literature, who is at present engaged in perhaps the most interesting part of his work, the View of the Philosophy of the 18th Century, has had an alarming attack which threatened his life. Hopes, however, are again entertained of his recovery.

A work was lately written at Paris, but suppressed by the government, containing a comparison of Agis king of Sparta and Lewis XVI. and ascribing the death of both to their mildness and want of resolution.

Mr. Beaumont, who, by the united efforts of his pen and pencil, has rendered the Alps so familiar to us,—is about to present the public with a history of Savoy, illustrated by numerous drawings of Antiquities, Views, &c.

Translation of the Latin Fable in our last number.

A correspondent, who expresses his admiration of the Latin fable, inserted in our last Number from the new edition of Abbate George Ferrick's Fabulæ ab Illyriis adajiis disumptæ, and feels a most natural curiosity after similar productions of a nation placed on the shores of the Adriatic Sea, "which has not yet exceeded that stage of cultivation, where the leading precepts of practical wisdom are generally preserved in proverbs," has favoured us with the following translation of that fable:

THE TWO SHIPS.

Two pines of stately growth from th' Alpine hill,
To ships converted by the artist's skill,
Rode in Ragusa's bay, well known to fame.
Alike in structure, and their freight the same,
These sister ships together spread their sails
On ocean's smooth expanse with favoring gales.
Sudden a storm arose!—the eastern tide
With mountain surges lash'd the vessel's side;
Fear seiz'd the crew, and half depriv'd of breath
Their bosoms trembled with the dread of death.
One bark the force of winds and waves sustain'd,
And with bold prow the port in safety gain'd.
Driven from it's course, by raging tempests tost,
Plung'd in the deep one hapless bark was lost.
Why was one wreck'd—and why was one preserv'd?
One captain guided this—that *many* serv'd.

VARIETIES.

PIC-NIC.—Though this word has puzzled all our etymologists, the custom is as ancient as Homer, for in the first book of the Odyssey, when Minerva appears to Telemachus disguised as Mentor, speaking to him of the waste and riot of the suitors, she asks what is going forward,

Ειλαπιν' ἠὲ γάμος; ἐπεὶ οὐκ ἔρανος τάδε γ' ἐστὶν.

'Is this a festival or a nuptial feast, for it cannot be a *pic nic*.' The word Ἔρανος, like *pic nic*, means a meal where all the guests contributed their share.

The Romans also had a similar kind of entertainment, to which they gave the name of *symbola*, derived from the Greek word Συμβολη.

The following anecdote, lately received from Constantinople, shews the present state of Athenian luxury. Lord Elgin had obtained permission from the Porte to send persons to Athens to look for the remains of ancient marble, &c. and among others they procured one marble containing an inscription, but so large that it was impossible to convey it to the sea by men only. On enquiry, not a wheeled carriage nor even a pair of wheels, could be found in Athens.

At length, after a long search, two old wheels, but of different sizes; were procured, and to these an axle-tree was fitted, on which, with much difficulty, and after many failures, the stone was conveyed to the sea-side.

It seems not to be generally known that the unfortunate Lewis XVI. was a lineal descendant of our equally unfortunate Charles I. The daughter of Charles married the Duke of Orleans, by whom she had a daughter married to the Duke of Savoy, and their daughter Maria Adelaide was married to the son of Lewis XIV. from whom the royal families of France and Spain also descended, and both the royal branches of the House of Bourbon would have stood before the House of Brunswick for the succession to this throne, had it not been for the Act of Settlement.

Few of the spectators who attend the representation of Shakspeare's Henry V. are possibly aware that not the descendants of that prince, but those of his antagonist the king of France, are now sitting on the English throne; for Catherine, after the death of Henry, married Owen Tudor, from whom Henry VII. and every subsequent English monarch are descended.

MANNERS.

IN our first Number it was remarked, that "all which can be comprised under the head KNOWLEDGE OF THE WORLD, is the knowledge of the manners and customs of London." This remark requires to be expanded, and may indeed be taken into consideration without disturbing the prevailing opinions either of the taste or morals of the age, for although the review of the subject which we propose to take may contract THE WORLD into a less space than it has been supposed to fill, it will at the same time probably afford some consolation to those who are not men of the world, and lessen that anxiety to *know* it, which leads to numerous perplexities and dangers.

Travellers have ever been so far aware of the truth of our remark, as to consider every tour as imperfect which does not comprehend the metropolis of the nation in which they journey, and would blush to publish their descriptions or observations of the manners of any country, if they had viewed only those of its remote provinces and villages. The chief city of every nation is the criterion by which the observer judges of the whole, because he judges, perhaps not improperly, that whatever is good or bad must derive its existence and its authority there, and be thence propagated throughout the inferior towns and villages.

In this country, it is generally acknowledged, that no person can lay claim to attention who writes on the subject of manners, at a distance from London; and the reason is, that in the remote parts of the country he can receive only an imperfect information, and that at second-hand; and although his powers of reflection or of wit may be adequate to the subject, his materials are so defective that he can treat it only in a very general, and, in some respects, a conjectural way, for want of what constitutes the chief merit of all descriptive censure or satire, ACTUAL OBSERVATION. Hence, the best and most useful works which have appeared on the state of publick manners, have appeared in the metropolis; and all attempts to assume the pen of the ESSAYIST in remote parts of the kingdom have in a great measure fallen short of expectation, from the insignificance of the place whence they were dated, which created none of the interest and anxiety that the public feels to know what passes in London, and in London only. The provincial Essayists, therefore, who indeed have not been very numerous, have been obliged to fill their lucubrations with questions of taste, or moral discourses, that might have been written with equal local propriety in a desert, or in a jail; or, by way of manners, to exhibit caricatures of what they had read in books, and what was no longer to be witnessed in real life. Manners strictly speaking are subjected to the empire of fashion, and the metropolis of every nation is the seat of that empire. No person could for a moment think of looking for it any where else; and a man of the world would as soon boast of the novelty of a cast-off suit, or imagine that he would appear to greater advantage at the Opera from having often paraded the 'Change at Bristol, or having spent the summer in the highlands of Scotland.

If we may be allowed to make a comparison between fashion and trade, between manners and commodities, we may say that London is the great manufacturing town of manners and morals, by means of an ancient and extensive monopoly, which all the nation besides can neither invade nor destroy. Other cities and towns, be they of whatever magnitude, and here we do not except Dublin, Edinburgh, or Liverpool, are allowed only to manufacture some common and coarse stuffs, such as nature and necessity prescribe, but cannot, in a single instance, attempt the finer sorts of *fabrique*, as our eloquent friend Mr. Christie would say, nor presume to dictate to the metropolis a single principle of politeness, the curve of a bow, the display of a veil, the knot of a ribband, the shape of a turban, or, in short, the infinitesimal part of a mode of looking, speaking, or acting. Let not the provincial towns, however, be offended with this representation of the relation in which they stand to the metropolis. The same state of things prevails, and the same bearings and distances are observed over all Europe. They are not in a worse predicament than the people of Lyons or Bourdeaux in France, those of Seville and Barcelona in Spain, or those of Riga and Krow in Russia. They still may have the satisfaction of carrying on a very advantageous trade, if they chuse to think it so, by sending up the *raw material* to London, and receiving it back in the manufactured state, with the highest polish, and the most beautiful gloss. They may send us up young merchants, whom we return in the shape of men of fashion, or a cargo of domestic society and happiness, which may be manufactured into card-clubs, routs, and picnics. And perhaps it is needless to add, by way of information, how much of late years this kind of trade has flourished, and how many facilities have been administered to it, by the smoothness of our roads, and the rapidity of our carriages, so that there are very few spots in our island, in which London manners and London morals have not been introduced.

But while the metropolis is thus acknowledged to be superior, and independent for its inventions and revolutions in manners, upon the rest of the united kingdoms, it cannot be denied, that it sometimes experiences the horrors of scarcity, and, by occasional sterility of genius in the professors of fashion, is obliged to have recourse to foreign aid. But even here the monopolizing spirit of trade shows itself, for the importers of fashion will admit no goods that have not been consigned to London houses, and conveyed in London bottoms, directly to the port of the metropolis, and from thence by safe and secret carriage to the warehouses of Pall Mall, and Bond-street. To illustrate the wisdom of this precaution, if, indeed, so plain a fact requires any illustration, we need only suggest to our readers the idea of the following shocking circumstances. Let them contemplate, for a moment the danger which the master of a ship would incur were he to land a Paris cap at Bristol, or by some strange blunder in circumnavigation, shew the dress of an opera dancer at Glasgow, or unship a quantity of *Nimms* and *Brutuses* on the shores of Norfolk. These goods, once exposed to the air of those *horrid* quarters, would infallibly perish: for the spirit of fashion is the most subtile of any, and evaporates in a moment if the vehicle be opened in any climate but that of Westminster. Let us likewise suppose for a moment, (and longer we would not wish to shock our readers) that Madame Recamier had been *first* seen in Norwich market-place, or had *first* dazzled the eyes of the dockers at Plymouth: would she then have been followed in the Park as a celestial being?—But such accidents, it must be allowed, happen very seldom, and there is one chief preventive clause in the navigation act of fashion, which prescribes that every thing shall be *horrid* and *a bore*, which has not the London stamp, and has not been conveyed thence in due order of wear, and with all the sanctions of custom. Were a cargo, then, of Parisian modes to be by any accident landed on the coast of Cornwall, it may be asserted with some degree of confidence, that their being intended for the purposes of cloathing the human body would never enter into the head of any *unlondonized* Cornish man.

Still, however, it is to be remarked, and we do it with some degree of regret, that the purveyors of modes of dressing, thinking and speaking, are now and then so lamentably deficient in invention, or at least in that ready invention which affords a continual supply of varieties, as to be indebted to foreign aid: and consequently to allow a superiority in original genius to some foreign metropolis. By what means this has happened, we shall not now stop to inquire. It is not, however, a falling-off peculiar to modern times. We suspect that London has been of old the pupil of the Continent, and history bears us out in asserting that, for above a century, Paris has been that pre-eminent and happy city to which all others look up with respectful deference. For the truth of this we may appeal to the most vulgar records, such as the statutes at large, the vigilance of the Custom and Excise officers, the annals of Doctors' Commons, and the trials of the Court of King's Bench. It must be added likewise, and this is an additional source of regret, that this traffick has been carried on in defiance of the laws of reciprocity, and consequently the course of Exchange has been greatly against us. While we have been importing almost every thing from Paris, and, no one will deny, paying dearly for it, the Parisians have never taken any thing from us. If there may be suggested any exceptions to this position, they are of too recent date to be subject to calculation. They neither copy our boots, nor translate our comedies; they seduce no manufacturers of games of chance, nor desire to have a single Englishwoman to gaze at in their parks, and paragraph in their news-papers; they send for no Englishman to dress their sallads,* nor have they engaged Hoby† to instruct them in buckling their shoes. They have imported no quantity of variegated lamps for routs, nor have they filled their boarding-schools with English teachers, English musicians, or English dancing-masters; and although an English news-paper has been established in their metropolis, our readers may be able to judge how far it deserves the name, when they are told that its principles are French, and its conductors outlaws.

Except, however, in the case of this losing trade with Paris, the manners and fashions of the metropolis are all our own, and whoever wishes to acquire a knowledge of the world, must repair to London, as the sole university, which permits no inferior schools, and admits none to its degrees who have not kept their terms within its walls. Those, therefore, who pride themselves on the "knowledge of the world," as an indispensable characteristic of a human being, as that without which wealth would be a burthen, and life itself insupportable, must not complain if we have narrowed the extent of their education to one seminary only, and if we shall hereafter, perhaps, attempt to prove that much even of that knowledge may be omitted without real injury, and that many classes of that seminary may be passed over, without any great danger of wasting life in obscurity, or of perishing in deplorable ignorance.

* *Opus est interprete.* Not long ago, an ingenious Frenchman was employed by the first circles to dress a sallad. He had half-a-guinea for the job, and furnished only some liquid ingredients which give a peculiar zest!

† To be completely dressed, a man must have his shoes buckled by Mr. Hoby, who actually attends for this purpose on some of the first people of fashion.

POLITICS.

THE assembling of the British Parliament, for the first time, after the publication of a periodical work, which has Politics for one class of the subjects with which it proposes to be engaged, naturally calls for some observations on that political body, one of the most remarkable, certainly, that ever existed.

We do not mean to dwell upon the admirable union, in our legislature, of the democratical, the aristocratical, and the monarchical forms of government, in the house of commons, the house of lords, and the king;—to explain the manner in which they act as checks upon one another; how the advantages which peculiarly belong to each of these forms are obtained, and the disadvantages prevented, by their mutual action; and how, by this happy conjunction,

we have liberty without anarchy, steadiness without oppression, and promptitude without despotism. These truths have been so fully proved and illustrated, that scarcely any one is ignorant of them, or hesitates to believe them. If there be any dispute, it is only respecting the degree in which the happy effects described are obtained. That monarchical, aristocratical, and democratical powers exist in our government, and that a greater degree of the benefits which ought to result from government are enjoyed by the inhabitants of this country, than in general have been, or are, enjoyed by the human race, can be disputed by none who is capable of understanding the subject.

It deserves, however, to be remarked, that the theoretical account of our constitution, though a useful generalization of the particulars, is not exactly coincident with its practical state. It is not, as separated bodies, or powers, each sitting in a different place, and each pursuing a separate class of interests and principles, that the king, lords, and commons balance one another. There is no token of that opposition between the different branches of the legislature, that incessant action, and reaction of which the theory speaks; they appear, in general, to go on amicably together, as if the views and interests of all were the same.

The balance is established, in reality, by an indirect, rather than a direct counteraction. The democratical interests alone are not pursued in the house of commons; the aristocratical alone are not pursued in the house of lords; nor the monarchical alone in the cabinet council. All these three interests are pursued in each of these three places; and as far as these interests are opposed the conflict is felt in each.

It can hardly be said, that at any period of the history of parliament, all those who form the great natural aristocracy of every country, all those whose possessions elevate them above the condition of the people, were contained in the house of lords. Of course a mixture of aristocratical interests and views must always have existed in the house of commons; though originally the condition of the greater part of the members of that house differed but little from the condition of the people.

By the operation of time, and the growth of riches in the country, the representatives of the people, in general, are now men of eminent wealth; scarcely yielding individually in point of fortune to the lords, and collectively far surpassing them. In the most important aristocratical arrangements, therefore, those which respect the power assigned to property, the interests of the upper and the lower house, instead of being opposed, are the same. If the house of commons then be democratical, by the dependance of the members upon their constituents, it must be aristocratical too, by the regard of the members to their own interests.

Nor is this all. Together with the riches, the dignity and rank of the members of the lower house have risen. Originally, when the obscure burghers of the corporate towns were summoned together to grant their consent to some imposition or tax, the great lords disdained to have any manner of intercourse with them. Now the case is so much altered, that none are more ambitious than the sons of peers to be admitted to sit in the lower house. In this respect, too, of just importance in the estimation of most men, the views of the house of commons are identified with those of the house of lords.

This creation of aristocratical interests, and by consequence, of aristocratical ideas, in the house of commons, instead of having destroyed the balance of our constitution, is the very thing which has preserved it. For the power of the house of commons has encreased so much, that had not the interests of the other branches of the legislature become incorporated with its own, it must before now have swallowed them up.

The power of holding the purse has gradually, in modern times, become of more and more importance, till now it is all in all. Originally the greater part, if not the whole of the expences of government, were defrayed by the rents of the king's lands; these were at last wholly alienated, and the king became dependant upon the people for his whole support. For three centuries past, by the progress of commerce and riches, money has been advancing in importance in the transactions of mankind. It may now be regarded, in Europe, as not only the instrument, but the measure of power. We shall not much err if we say, that the power of every state is in proportion to its wealth. This power of money necessarily threw a vast increase of influence into the hands of those who had the granting of it. And in England the dependance of the government upon money is increased to an enormous degree by the national debt. All these causes have conspired to magnify the importance of the house of commons, and it now possesses the undisputed ascendancy among the members of the legislature. The whole business of the nation may, almost literally, be said to be transacted there. By the power which it claims of watching over the expenditure of the public money, there is hardly one action of government which it has not an opportunity of canvassing. So little can be done without money, that recourse must be had to the house of commons in every thing. And thus, not only the legislative, but the far greater part of the executive power of the state, is concentrated in the house of commons.

We find accordingly, that instead of seeking to oppose directly the power of the commons, the chief object of the other two branches of the legislature is to acquire an influence in directing the measures of that assembly. We see daily how great an object of ambition it is to the nobles to place as great a number as possible of their connections, and dependants in the lower house. And much discussion has been employed respecting the power of the king, both to direct the choice of members, and to influence their resolves when chosen.

By the concentration, however, of power, and of business in the house of commons, it does not follow that the aristocratical and monarchical members of the constitution have lost any degree of their real power. We have already explained in what manner the house of commons has become itself aristocratical, and the condition of its members become really that of nobles. By a memorable vote of the house

in question, not many years past, the power of the crown, instead of having diminished, was declared to have encreased, and to have encreased to a dangerous extent. We are disposed to believe that this opinion, if examined to the bottom, will not be found to be just. But there is some reason to conclude that the aristocratical interest has encreased. This is probably more than counterbalanced, however, by the superior influence which public opinion has acquired, not in this country only, but in every country in Europe.

If it should occur to any man to conclude, that since the business of the state, not legislative merely, but executive too, is almost entirely transacted in the house of commons, no other legislative or executive member of government is necessary, and that the business more peculiarly appropriated to the king and his council, might be transacted by an executive committee of the house of commons and its chairman, we reply, that no opinion can be more erroneous. It is the influence of the king upon the house of commons, which renders their operations salutary, which prevents them from becoming quickly in the highest degree pernicious. Were the ambition of the members of the house of commons to be opened, in this manner, to the attainment of the highest power, what vast motives would be given to contention? That house must become a scene of intrigue, violence, and animosity hardly paralleled by any thing which has yet been seen. Instead of consulting for the interests of the country, they would have enough, and more than enough to do, to receive the importunities of the candidates, and listen to the motives which they presented. A popular assembly must have its ambition moderated, by the want of power to place any of its members in situations of high honour or profit. This is its natural, and proper check. And this the silent work of time has established in the British constitution, in a more admirable form, than the wit of man had been able to contrive. The attainment of the supreme power is taken entirely out of the number of the objects of ambition, by fixing it immoveably in an individual, and the line of his descendants. And even the subordinate offices of greatest trust and profit are not in the gift of the house of commons? This would still render it, in a great degree, a scene of cabal, intrigue, and contention. The nomination to these is intrusted to the king, and to him undoubtedly, of all depositaries, can improper motives of choice be the least seldom presented.

The mischiefs hitherto found inseparable from the proceedings of a popular assembly are thus completely provided against. And though the greater part of the government of the country, even the executive part of it, is carried on, in fact, in the house of commons, it is done without disturbance. This is the only mean hitherto discovered, by which the advantages of a popular government have been obtained, unaccompanied, perhaps, by still greater disadvantages.

The character of the legislature depends not only upon the orders of the citizens of whom it is composed, and the manner in which they are united, but upon the individuals too who happen, at any time, to form these orders.

We intend here to make some observations on the ability which is exhibited at present by those individuals. We mean to confine ourselves in this paper to that subject entirely. And we entreat our readers to abstract their minds, if it be possible, from all consideration of the measures of the different parties, whether ministerial or anti-ministerial; except in so far only as they are indicative of talents in the persons who are the authors of them.

We entirely agree with Mr. Burke, that he left parliament greatly richer in talents than he found it. We do not confine our meaning to the great leaders of the different parties. We say, that of those who do not aspire to be leaders, there is at this time in the house of commons a much greater number who are capable of taking a share, and a respectable share in the business, than ever was found in that house at one time before. This is a fact, perhaps, of greater consequence than the superiority of the present leading members to those who have heretofore directed the resolves of that assembly.

Two of these pre-eminent members are presented to our notice by claims of such peculiar magnitude, that it is natural we should begin with them. The gentlemen to whom we allude are Mr. Pitt, and Mr. Fox.

We have no hesitation in admitting, what indeed could hardly avoid being the case, considering the station he so long filled, that Mr. Pitt has been overpraised, and his talents over-rated. But in the most sober tone of just appretiation, let us ask what proof of ability has been exhibited by any preceding conductor of his majesty's councils, which has not been exhibited by Mr. Pitt? It is not easy, in running over former ministers in your memory, to find one with whom you can compare him. Let us select one who stands highest in the recollections of his country, let us compare him with his own father.—Of those who have heard the speeches of both, and who are admirers of the eloquence of both, there are a greater number who think that of the son superior, than there are who think that of the father. And if we may judge by the printed specimens which we have of both, though there may be more impetuosity, more fire, in particular passages of the speeches of the father than in those of the son, there is not the same coherence of ideas, nor the appearance of a mind equally formed to view an object in that steady and systematic manner which leads with most security to truth, and is the surest indication of intellectual superiority. To compare their measures; let us wave the dispute respecting the wisdom or folly of going to war against the French republic, a complicated question, which violently excites the passions of men, and we may safely undertake to point out as many errors in the administration of Lord Chatham, as can be pointed out in that of Mr. Pitt. Undoubtedly too, we may undertake to point out an equal number of difficult and salutary measures carried by Mr. Pitt, as by his father, even regard being had to the times they enjoyed power. The arms of the country, victorious under the one, and baffled under the other, are urged to prove the inferiority of Mr. Pitt's genius. But the conclusion is not supported. It is not proved, that the fortunate

actions of Lord Chatham were more arduous than the operations of Mr. Pitt, though disappointed of success. The situation of affairs, in which Lord Chatham acted, was the ordinary one, a situation in which hundreds had acted before him, in which too the arms of his country had before been distinguished by more brilliant success than they were under him, though certainly not supported, at the time to which we allude, by any extraordinary talents in the minister. But the situation in which Mr. Pitt acted was unexampled; and never, in the course of human affairs, did the succession of events set foresight and conjecture so completely at defiance. No administration was ever distinguished by so great an ascendancy of the premier over his colleagues in office, as that of Mr. Pitt. And what account can be given of this, but great superiority of talents? The knowledge which he possesses of the traffic and operations of his country is said by those who know him to be unequalled, and not merely to extend to the general outline, but to the detail of every manufacture and employment in the kingdom. He himself, indeed, is said to mention one exception, the distillery, which he never, he says, could understand completely, or be able to prevent the frauds of the distillers. His quickness and dexterity in managing the combinations of figures is said by those who have transacted business with him to be great. We consider the plans of finance, for which he has been so unmercifully loaded with applause, as wise and salutary, but by no means requiring any great depth of invention to discover, or any great magnanimity to carry into execution.

It is difficult to appreciate justly the talents of a man, who has made a use of his talents of which we either very much approve, or very much disapprove. We have made the attempt however in the case of Mr. Pitt; let us now make it in that of Mr. Fox. A majority, probably a large majority of those who have heard the speeches both of Pitt and of Fox, prefer the eloquence of the former. He has greatly the advantage in point of voice. He has that peculiar tone of confidence, both with regard to the matter and the words of his speeches. which, if supported by high situation, high character, and some abilities, imposes, as if by a sort of magic, upon mankind. It was the irreparable misfortune of Mr. Pitt, that he went into office at an age so early that it was impossible his mind could be stored with general knowledge, and that he continued in office without any intermission which could allow him time to repair that disadvantage. Accordingly, though we discover a more correct judgment in his speeches than in those of Mr. Fox, we do not find the same rich supply of ideas and information. Mr. Pitt exhibits more acuteness in discovering the weak parts of an antagonist's argument, and more art in turning his errors against him. But Fox exhibits a mind much more accustomed to enlarged and comprehensive views of human affairs, and to reflection on the general nature of human society. Mr. Pitt is said to be a more correct speaker, in point of language, than Mr. Fox. But this is a mistake. The errors of Mr. Fox, however, are more easily detected; because the construction of his sentences is so simple, that you see from the beginning to the end of them at a glance: whereas those of Mr. Pitt are so long and involved, that you lose the beginning before you get to the end, and know not whether the one corresponds with the other or not. Mr. Fox too, by hesitating and correcting, often advertises you of his mistakes. Now, Mr. Pitt never hesitates or corrects. Pitt understands much better than Fox the passions which are favourable to his purpose; and he has shewn that he possesses the power of raising fear, and indignation at least, in a very high degree. The manly, and dignified manner of Mr. Pitt, too, is certainly superior to the bustling, and over-rapid, and somewhat frivolous manner of Fox, however powerfully recommended by its simplicity, and the irresistible appearance of candour which distinguishes it. A striking characteristic of the speeches of Mr. Fox is the bold and generous sentiments of freedom with which they abound, which seem to warm himself even to enthusiasm, which rouse so strongly the feelings of his hearers, and which probably have an effect even on those who disapprove of them. One thing, of no little importance, may be said of the eloquence of Fox, which cannot be said of the eloquence of Pitt. It has stood the test of adversity, that of the other has not. The favour with which Mr. Pitt, as the son of Chatham, was received at first, and the high station which he has so long filled, would have procured admiration to talents far inferior to his. The eloquence of Fox, when he was the most unpopular man perhaps in the kingdom, extorted the highest approbation. One of the most eminent of his enemies, the author of the Pursuits of Literature, who by an application of scripture, not perfectly decent, condemned the tendency of his speeches, in language the most awfully severe that ever dropt from a pen, calling his "tongue fire, a world of iniquity, full of deadly poison, which setteth on fire the course of nature, and is itself set on fire of hell," even an enemy, capable of such violence as this, declared that the eloquence of Fox was unparalleled in the British Parliament.—We can carry the comparison, however, between him and Mr. Pitt no farther. We have little or no experience of the wisdom of Mr. Fox in conducting affairs. But if a conclusion is to be drawn from the judgment with which he uses his talents in parliament, and in ordinary life, we are obliged to confess, that we do not think it is very favourable.

Mr. Dundas who was long understood to stand next to Mr. Pitt in the management of affairs has lately become a member of a different branch of the legislature. With the merit of no pretensions to what is called *fine* qualities, of any kind, this gentleman possessed a practical sagacity, and a just discernment, the fruit of good talents, and experience of mankind, which rendered him not only a valuable co-adjutor in counsel, but a powerful supporter in debate.

In considering the talents of those who follow Mr. Pitt, and Mr. Fox, undoubtedly the two first orators, who ever sat in Parliament, the wonder is not that these stand before the rest, but that there are so many who bear a respectable comparison with them. In tracing the annals of Parliament, you do not find a great number to prefer to Lord Hawkesbury, either

in extent of political information, or in the power of displaying his ideas to advantage. Mr. Addington's talents in debate are not of the first rank, and perhaps they are less estimated from his filling the place of such a predecessor. But by our fathers the place of Speaker of the House of Commons was understood to require ability of no ordinary sort. No man ever filled that arduous situation with more approbation than Mr. Addington. And we do not conceive it impossible to be inferior to Mr. Pitt, and Mr. Fox, in eloquence, and be as wise a man as either of them.

Mr. Grey and Mr. Sheridan come up so near to the merit even of the two foremost members that we may safely rank them with any preceding leaders in the house of commons. With great natural acuteness, vivacity, an infinite command of ludicrous images, and more power of appropriate language than almost any man in the house, Mr. Sheridan chuses a task in which these qualities are peculiarly useful, and in which his great defect, the want of knowledge, least appears. He in general confines himself to the cutting up of the arguments of an adversary.—If any thing be wanting to the energetic and manly eloquence of Grey, too, it is knowledge.

Mr. Windham deserves particular regard, though certainly no orator. His speeches exhibit marks of knowledge, and of a truly cultivated mind. Yet they never make a great impression; and in general tire his hearers insufferably. Notwithstanding the violence of his principles, his manner is cold, and his voice feeble, and peevish. He spends so many words about the trifling illustrations of his argument, or even things altogether extraneous to it, and bewilders you with so many little distinctions, and refinements, that you lose sight of the great points to which he means to direct your attention.

Not only however are there a greater number of eminent individuals in the house of commons at this than at any preceding period; but the whole body of it is more enlightened. The mercantile, and manufacturing gentlemen, who form a part of it, are now much better educated than formerly. Nay the habits of life of the landed proprietors are far more favourable to knowledge and intellectual qualifications. Even the dissipation of a fashionable life, necessarily implying a varied intercourse of society, is more favourable to the communication of ideas, and the exercise of mind, than the rude sports of the field, in which the English gentry formerly spent their time.

One particular must strike every man who has enjoyed the advantage (not a small one) of witnessing the proceedings of the house of commons. We mean the manly, and admirable simplicity which distinguishes the mode of speaking there. No theatrical tones and gestures are here attempted. And nothing can withstand the contempt of the house of commons at the affectation of that *fine manner*, as it is called, which so often disgraces both the pulpit and the bar.

The only subject of general importance, which has occupied the attention of parliament, since it met, is the continuance of the Act to restrain the Bank of England from paying in specie. Nobody denied the possible expedience of the measure. But Mr. Tierney, and Mr. Fox required a committee of enquiry, to ascertain the nature of the case. The reasons urged by Mr. Addington for the necessity of the measure were the unfavourable state of exchange, and the number of the notes of country banks in circulation, the calling in of which occasions a run upon the Bank of England for gold, no less than that of its own. Leave was granted to bring in a bill to continue the preceding act, till six weeks after the commencement of the next session of parliament.

The attention of the Lord Mayor, Aldermen, and Common-council, of the city of London, has been most laudably turned to the improvement of some very important circumstances respecting the police, and commerce of the city, as we find by three petitions presented to the house of commons on Monday, for leave to bring in bills,

1st. For the enlargement of Smithfield market.

2d. For establishing a coal-market in order to prevent a monopoly, and all the abuses of combination respecting that article. We trust that no pains will be spared, to obtain the best information, and to establish an effectual system of regulation, in this business. And we hope that this is not the only species of traffic in the city which the magistrates will discover to require their inspection.

3d. For improving the Port of London, and appropriating certain sums of public money to that purpose.

The first two of these petitions were referred to committees, and the last ordered to lie upon the table.

NOTICE TO CORRESPONDENTS.

*** *We are sorry to have been obliged to defer the Essay on the* Characters of the Irish, *which we announced for this Number. It shall certainly appear in our next. Also the Extract from the French Work promised in our last.*

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NUMBER 7.] THURSDAY, FEBRUARY 17, 1803.

PHYSICS.

I. *On Charcoal.*

THE composition of charcoal has lately attracted a good deal of the attention of Chemists. Indeed, ever since chemistry began to be studied as a science, the importance of an accurate analysis of this substance, as contributing to explain the nature of combustion, was sensibly felt. It was one of the foundation stones of the Stahlean theory that charcoal consists almost entirely of phlogiston. And whatever changes the term phlogiston underwent, to whatever new substances it was applied, still it was necessary to endeavour to prove that they existed in charcoal. Lavoisier's celebrated experiment, published in the Memoires of the French Academy for 1781, proved that carbonic acid is formed by the combustion of charcoal, and that it is composed of about 28 parts of charcoal, and 72 of oxygen. Hence it was concluded, that charcoal is a simple substance, and the term *carbon* was invented to denote it when in a state of purity.

This conclusion was generally admitted by Chemists, till the publication of Guyton Morveau's experiments on the diamond in 1799. He found that 18 parts of that substance, when burnt in oxygen gas, yield 100 of carbonic acid; whereas 18 parts of charcoal yield only sixty-four of carbonic acid. Hence it was concluded that charcoal is not pure carbon, like the diamond, but carbon already combined with a portion of oxygen; or an *oxide of carbon*. And it is obvious from the above experiments, that the proportion of its component parts must be 64 carbon, and 36 oxygen.

About a year ago, the attention of chemists was called by Dr. Priestley to the great quantity of *inflammable air* which is obtained when charcoal is heated to redness, mixed with black oxide of iron, or the earthy carbonates. This inflammable air being supposed by that celebrated observer a species of carbonated hydrogen gas, its appearance was considered by him as inconsistent with the presently received chemical opinions. But Mr. Cruikshank, of Woolwich, discovered that the gas is a compound of carbon and oxygen without any hydrogen, and therefore gave it the name of gaseous oxide of carbon. It follows from his experiments, that this gas is composed of 26 parts of carbon and 74 of oxygen. It contains therefore five times as much oxygen as exists in charcoal. The French chemists Desormes and Clement obtained the same results as Cruikshank, and drew the same conclusions. But Berthollet objects to these conclusions, and considers the new gas of Cruikshank as containing hydrogen. His objections display that sagacity which distinguishes all his dissertations; but certainly do not overturn the experiments of Cruikshank, the precision of which cannot be called in question.

It is obvious, that if the gaseous oxide of Cruikshank contains hydrogen, it must come from the charcoal, and that therefore hydrogen enters into charcoal as a component part. This accordingly is the opinion of Berthollet. It is the opinion also of Mr. Cruikshank, as is obvious from his second paper on the oxide of carbon. Now, on the supposition that charcoal contains hydrogen, it is certainly possible to reconcile the experiments of Lavoisier and Guyton Morveau, without supposing charcoal to be an oxide of carbon. For if it be a compound of 18 parts carbon and 10 hydrogen, the combustion of 28 parts of it would only produce 100 parts of carbonic acid. It is true that 60 parts of water would be formed at the same time; but this might in many cases escape detection. It is therefore of the utmost consequence to ascertain the composition of charcoal with precision.

Now the experiments of Cruikshank render it probable that charcoal, when prepared in the common way, always contains hydrogen; for if it be introduced into a retort, and strongly heated, it always yields a portion of carbonated hydrogen gas. It will be said, perhaps, that this gas is formed by the decomposition of a portion of water ready formed in the charcoal; but if that were the case, the proportion of carbonated hydrogen would be increased by allowing the charcoal to absorb a little moisture; but the contrary takes place.

On the other hand, we learn from the experiments of Desormes and Clement, that if well made charcoal be put into a covered crucible, and heated for an hour as strongly as possible in a forge, it then ceases to have the property of yielding carbonated hydrogen gas by heat; and when burnt in oxygen gas, such charcoal yields only carbonic acid without any sensible portion of water. The proportion of carbonic acid formed is the same as that indicated by Lavoisier; namely, 28 parts of charcoal form 100 of carbonic acid. Hence it follows that charcoal heated as strongly as possible in a forge contains no hydrogen.

From these facts we learn that there are two species of charcoal; namely, 1. Common charcoal, or charcoal prepared by means of a moderate heat; and 2. Charcoal heated as strongly as possible. The first, in the present state of chemistry, must be considered as a compound of carbon, oxygen, and hydrogen; the second is composed of carbon and oxygen. The charcoal which constitutes almost the whole of plumbago is of the last kind, and might therefore be used in most cases where pure charcoal is required. The second species of charcoal requires a stronger heat to set it on fire than the first species.

Such is the present state of our knowledge respecting carbon, and its compounds. But to decide the point completely it would be necessary to repeat the

combustion of the diamond with all possible care. Guyton's experiment not only differs from that of Mr. Tennant; but from the mode in which it was conducted, it is scarcely entitled to the implicit confidence of chemists. We wish some of our English chemists of large fortunes would repeat it with that precision and skill which has so often distinguished their labours.

II. *Table of the fall of Rain, and of the evaporation at* Liverpool, *during* 1802, *communicated by* G. I. Liverpool.

	Jan.	Feb.	March	April	May	June	July
Rain in inches.	3	2.75	0.75	2.25	1.64	2.5	6.1
Evaporation in inches.	1.35	0.75	1.2	1.65	3.27	2.88	2.42

	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Rain.	3.5	1.75	4.9	1 7	2.7	33.54
Evaporation.	2.25	2.	1.65	.85	1.	21.27

	Inches.		Inches.
Rain during the summer half year	17.74	Evap. during do.	14.47
Do. during the winter half year ..	15.8	Do. during do..	6.80
Total	33.54	Total	21.27

This table agrees very well with that inserted in the fourth volume of the Manchester Memoirs, from which we learn that the mean annual quantity of rain at Liverpool is 34.41 inches. This is considerably above the annual mean for England, which Mr. Dalton estimates at 31 inches, and even of Britain, which is 32.5 inches. If to this we add 5 inches for dew, the whole rain water which falls in Britain during a year, would be sufficient to cover the surface of the island, were it level, to the height of 37 inches and a half.

The evaporation, as given by our correspondent, is considerably under the mean annual evaporation for England, which Mr. Dalton estimates at 25 inches. From this estimate it follows that the quantity of water discharged every year into the sea by all the rivers in Britain would cover the whole surface of the island to the height of 12 inches and a half. Hence its absolute quantity may be easily calculated.

III. *Megalanthropogenesia.*

For some time a book, understood to be preparing, on the art of propagating children of genius, has been a subject of conversation in Paris. And lately the subject was discussed with great gravity, in the School of Medicine there; the thesis on that occasion being, *Whether there exists a physico-medical art to augment the intelligence of man by perfecting his organs? Or is Megalanthropogenesia nothing but an error?*

The interest excited is said to have been immense; and more than two thousand auditors attended the discussion. We shall give our readers an abridgment of the account we have received of it.

Citizen Robert, the author of the book mentioned above, laid down the hypothesis, and is represented as having displayed prodigies of learning and ingenuity to prove that the intelligence of man depends upon the state of his organs, and that by perfecting his organs, his intelligence progressively encreases. He then pointed out the means of thus perfecting them. The professors, far from regarding this system as an error, spoke of it as a conception which displayed genius; and they only offered objections to give the candidate an opportunity of developing completely his idea. He *pulverized*, we are told, all objections, with such a display of learning, ingenuity, brilliancy of imagination, and quickness of repartee, that the whole hall frequently resounded with applauses.

IV. *Agriculture.*

Agriculture is undoubtedly the most important of all the manufactures of a country. Not only is there a much greater proportion of the people engaged in this, than in any other; but the capital and the industry employed in it are much more productive than in any other manufacture. In the most emphatical sense of the word, therefore, does it deserve the attention of every friend of his country. On this account it is with extreme pleasure that we notice the commencement of a lecture in London on Agriculture, by that society of gentlemen who last year so laudably erected the Agricultural Institution. The idea of a voluntary association, by private individuals, for the educating of farmers, is one of the finest with which we are acquainted. This is the most effectual of all contrivances to promote the agriculture of the country. It is vain to make experiments to improve the theory of agriculture, if you get not people to make use of your discoveries. Besides, the greatest improvements, in every thing, are made by the enlightened practitioner.

We recommended earnestly in our last Number to provide the means of a scientific education to the young men engaged in business, by establishing lectureships, near the great scenes of business. And certainly it is an object not less ardently to be desired, that a taste for agriculture should be diffused among that class of men to whom improvements in the art are of greatest advantage, the great landed proprietors. We cannot conceive any contrivance for this purpose so excellent as furnishing them during their residence in town with the means of education in agriculture; and no means are so liberal and so effectual as voluntary associations, and lectures, of the kind to which we here allude.

Men of fortune, both young and old, who partake of the general improvement of the age, are not so corrupted by the pursuit of pleasure as to be incapable of a relish for more refined and serious gratifications; and we are strongly persuaded that by lectures well conducted, such a taste might be raised for agriculture among the men of this description, as would make them repair with eagerness to their estates in summer to carry their plans into execution, and would be attended with infinite advantages to the country.

Agriculture is, in fact, the proper employment of a gentleman. In a busy and commercial nation, where no one ought to be idle, it is that peculiar

manufacture which it is the proper business of a gentleman to carry on. It is employed upon that raw material, if we may give it such a name, which peculiarly belongs to him, the soil. It is the most independent of all occupations. It is the most elegant, the one from which the man of real taste and sensibility may derive the most varied and exquisite gratification. And it requires a much greater union of mental accomplishments than any of the ordinary occupations of human life. The most complete acquaintance with chemical and mechanical philosophy, a minute practical acquaintance with soils, and the effects of the weather, with the temper and constitution of animals, and with the nature of the human beings whom he has to conduct, imply a union in the complete farmer of scientific knowledge, experimental sagacity, and knowledge of human nature, which forms one of the most eminent of human characters.

The introductory Lecture to this course is published. It contains some sensible remarks. But they are not quite so numerous, as the length of the lecture would have admitted. In truth, as a composition, it cannot be said to stand high. The author, however, discovers that he possesses a comprehensive, and enlightened view of his subject. And we doubt not that he will deliver a course highly instructive. There are a few unfortunate applications of chemical language, which, it is a pity, were not corrected.

V. *Botany.*

Botanists will be interested to learn, that 113 new plants have been added to the Botanic garden of the University of Cambridge; most of which are from the torrid Zone.

ROYAL SOCIETY.

At the Meetnig on Thursday, the 10th inst. The Earl of MORTON, V. P. *in the* Chair.

The following papers were read:—

1st. On the transit of Mercury over the sun's disk, by Professor Bügge, of Copenhagen.

2. On the same subject, by Dr. Herschell.

3. To prove that the telescope is not affected by a humid atmosphere; and in consequence that astronomical observations may be made during a fog, by the same Gentleman.

4. An abstract of Mr. Hume's paper, on the Diseases of the Tongue, communicated at the last meeting; proving that in cases of exerescence, fungus, or cancer, the part affected may be removed by the use of ligatures.

The Hon. Fulke Greville Upton, was balloted for, and elected a Fellow of the Society.

LITERATURE.

REVIEW OF BOOKS.

The Life and Posthumous Writings of William Cowper, *Esq. with an Introductory Letter to the Right Honourable Earl* Cowper. *2 vols. 4to.*

From the rich literary treat, with which Mr. Hayley has presented us, it is difficult to know what parts to select. The first volume contains 413 pages, with a portrait after Romney, and a portrait of Mrs. Cowper, mother to the poet. The second volume contains 422 pages, with a portrait of Cowper, after Lawrence. The whole is divided into three parts, to which an appendix is added.

Cowper was born at Berkhamstead, on the 26th of Nov. N. S. 1731, and died on the 25th of April. He was buried on the 3d of May, in Desham Church.

Mr. Hayley introduces the mother of our poet, with the following beautiful verses by the son:— (Page 2.)

"Where once we dwelt our name is heard no more,
Children not thine have trod my nurs'ry floor:
And where the Gard'ner Robin, day by day,
Drew me to School along the public way,
Delighted with my bauble Coach, and wrapt
In scarlet mantle warm, and velvet capt;
'Tis now become a history little known,
That once we call'd the past'ral house our own, &c."

Mr. Cowper left Westminster-school at the age of 18, in 1749, and was afterwards placed in an Attorney's office, Mr. Chapman. On quitting this situation he resided as a regular student at law in the Inner Temple. In a letter to Mr. Park, 1792, Cowper says,

"From the age of 20 to 33, I was occupied, or ought to have been, in the study of the law; from 33 to 60, I have spent my time in the country, where my reading has been only an apology for idleness, and where, when I had not either a Magazine, or a Review, I was sometimes a carpenter, at others, a bird-cage maker, or a gardener, or a drawer of landscapes. At 50 years of age I commenced an author." (Page 19.)

"His early turn to moralize, adds Mr. Hayley, on the slightest occasion, will appear from the following verses,* which he wrote at the age of 18: and in which those, who love to trace the rise and progress of genius, will, I think, be pleased to remark the very promising seeds of those peculiar powers which unfolded themselves in the richest maturity, at a distant period, and rendered that beautiful and sublime poem, *the Task*, the most instructive and interesting of modern compositions." (Page 21.)

Mr. Hayley mentions with becoming delicacy the infirmity of his friend. "The misfortune of mental derangement is a topic of such awful delicacy, that I consider it as the duty of a biographer, rather to sink, in tender silence, than to proclaim, with circumstantial and offensive temerity, the minute particulars of a calamity to which all human beings are exposed, and perhaps in proportion as they have received from nature those delightful, but dangerous gifts, a heart of exquisite tenderness, and a mind of creative energy." (Page 26.)

In 1773, Mr. Cowper sunk into severe paroxysms of religious despondency. His gradual recovery is thus described. (Page 89.) "The spirit of Cowper emerged by slow degrees from its very deep dejection; and before his mind was sufficiently recovered to employ itself on literary composition, it sought, and found, much salutary amusement in educating a little group of tame hares. Their portraits, engraved from a drawing presented to Cowper, may serve as a little embellishment to this life."

The first stanza of the naval song, on the loss of the Royal George, (adapted to the march in *Scipio*,) which was a favourite production of Cowper's, is particularly impressive.

* Verses written at Bath, on finding the heel of a shoe.

Toll for the brave!
The brave! that are no more!
All sunk beneath the wave,
Fast by their native shore.

Mr. Hayley pays deserved attention to the modest character and abilities of the late professor of poetry at Oxford, the Rev. James Hurdis, and inserts many of the letters which he received from Cowper. (Vol. 2.)

The poem to Mary deserves the warm encomium which the biographer renders. It describes the encreased infirmities of Mr. Cowper's faithful and aged companion, Mrs. Unwin: the following are the two first stanzas:

The twentieth year is well nigh past,
Since first our sky was overcast,
Ah would that this might be the last!
My Mary!

Thy spirits have a fainter flow,
I see thee daily weaker grow—
'Twas my distress that brought thee low,
My Mary!

In the appendix, among other pieces, are Latin translations from the Fables of Gay, and three Numbers of the Connoisseur written by Cowper—No. 129, No. 134, and No. 138.

Guthrie's Tour through the Taurida or Crimea. 4to.

This work is the joint production of the late Mrs. Maria Guthrie, a French lady, who was directress of an Imperial seminary for the education of the female nobility of Russia, and of her husband, Mathew Guthrie, doctor of medicine, who seems to have a similar charge in the Imperial corps of noble land cadets at St. Petersburg. It is presented in the form of a series of letters, written from the lady to her husband, while she was on a tour for the recovery of her health, to the Tauric Chersonese, or Crimea, a country accurately described (as appears from this work) by Herodotus, the father of history, from his own knowledge, frequently noticed by the Greek and Roman writers, and now beginning again to attract the notice of the world, after being sunk during some centuries under the darkness of Turkish ignorance. Dr. G. had some years before gone over the same country in the service of the empress; and he has incorporated with the substance of his wife's letters the history of the country, while under the dominion of the Greeks, Romans, Goths, Genoese, Venetians, Tartars, &c. whereby this work is connected with another, which he published in the year 1795, under the title of 'Noctes Rossicæ.'

The lady begins her epistolary journal with her arrival at the new city of Nicolayof on the Bog, in the house of admiral Mordwinoff, who was married to an English lady. From that station she proceeds along the coast of the peninsula to its eastern extremity, and, crossing over the Bosphorus, gives some account of the island of Phanagoria in the Asiatic side of the strait, and of an eruption of mud in the year 1791; and thence she returns to the European side.

Mrs. G. describes the peninsula as divided by the river Salgir into two parts, nearly equal in extent, but strongly marked with distinctive characteristics. The northern division is a level plain, consisting of soil impregnated with salt, which produces grass in great abundance, but nothing else, and interspersed with lakes of salt water, the summer incrustation of which furnishes salt, the chief article of trade. Having neither hill nor tree to break the force of the north-east wind, it is intolerably cold in winter, and, from the same causes, scorching hot in summer. The southern division consists of hills with temperate fertile vallies, one of which in particular, 'the lovely valley of Baydar, called by the natives the *Tauric Arcadia*, the *Crimean Tempé*, &c.' is described by our fair traveller 'as infinitely more beautiful than that more celebrated Thessalian valley, and inhabited by a pastoral and agricultural race of Tartars who seem to realize the poetic pictures of pastoral innocence.—A longer acquaintance would perhaps have induced her to change her opinion. On a rocky mountain she found a colony of about 200 families of Jews, called Karay Jaodi (black Jews), who are distinguished by their cleanliness, by being (as the Jews were in their own country) agricultors, not traders, and also by differing from other Jews in some points of their religious tenets and ceremonies. Mrs. G. thinks them a branch of the tribes carried off from Jerusalem by a king of Nineveh, or a remnant of the Melanchlœni (*i. e.* people wearing black clothes), a nation found in this part of the world by Herodotus.*

The description of the country is followed by accounts of the manners, &c. of the various nations in the peninsula. But we regret, that no attention has been paid to that curious and interesting subject, the language of the Gothic division of the inhabitants, which, from the account of Busbequius, Scaliger, &c. seems to remain in great purity in that country.

We have next a sketch of the commerce of the Greeks, Romans, Venetians, and Genoese, in the Euxine sea, which we should have been glad to see supported by pointed quotations from the authors whence the information is derived.—It may be observed of many writers upon ancient as well as modern commerce, that they have not been sufficiently attentive to these simple truths, that *a great commercial port must have an extensive back country to provide commodities for exportation, and to consume the foreign articles imported;* and that *two great commercial ports cannot exist near to each other.* Hence, if so many ports in the small country of the Crimea have enjoyed commercial prosperity, they must have arisen to pre-eminence in succession. A well-meaning patriotic writer has strongly expressed his wish, that every creek or cove on the British coast should be improved into a great commercial port; but let us look to facts. Chester and Lancaster had some vessels when Liverpool had none. Liverpool is now the second port in the British empire; and Chester and Lancaster are almost unknown as ports. Nay, Bristol, after supporting during several centuries the rank of the second port, is now sinking under the ascendancy of Liverpool, though all Wales be interposed between them.

* Procopius (Bell. Vand. l. i.) says, that the descendants of the Melanchlœni were called Goths, and spoke Gothic, in his time. They also had the tall stature, fair skins, red hair, &c. characteristic of a Gothic origin, but very unlike the Jews.

After the lady's letters there is a Supplement by Dr. G. containing essays on several subjects of antiquarian curiosity; and also an Appendix, containing, among other things, a medallic history of the kings of the Bosphorus, partly from medals collected on the journey, but chiefly from the accounts of the Bosphoric records, collected by Mr. Cary. The medals are printed in letter-press, 'in order to draw them from 'cabinets and costly numismatic works into the pub-'lic service.' And, though it is to be regretted, that the expounders of the figures impressed upon medals and coins are often obliged to give very fanciful explanations, and are often too ready to superstruct facts upon such explanations, those who are desirous of studying the history of that ancient kingdom, which formed a part of the dominions of the great Mithridates, will here find a great addition to what has been generally known of it.

We cannot help thinking, that, if Dr. G. had given us translations of the lady's letters with all their own vivacity, and given his own additional matter in the form of notes, it would have been more satisfactory: for, as it is, we must suppose Mrs. G. at least as conversant with ancient authors as her celebrated country-woman, Madame Dacier, and moreover very well acquainted with English writers, and competently skilled in geology and antiquities; all which are rather inconsistent with her avocations in superintending the education of the young ladies of Russia, besides the improbability of supposing that she travelled with a library.

The embellishments, besides a vast profusion of medals and some antiques, are two maps, which are very neatly engraved; but the very numerous errors in the writing shew the want of the author's superintendence.

Travels into the Crimea, [and] a History of the Embassy from St. Petersburgh to Constantinople in 1793, by a Secretary of the Russian Embassy. 8vo.

The travels in the Crimea begin at p. 21, and end in p. 46; and they contain more of rural or landscape description, than of any thing characteristic or peculiarly belonging to that country. Our author says, (p. 27,) that the fort of the Jews is not without springs, rivulets, and wells, whose waters are dispersed by canals and pipes.——Mrs. Guthrie (in her Tour in the Crimea) says, those Jews have not a drop of water but what they carry up from the low-grounds, except what they can save in time of rain.—Such are the unavoidable mistakes, or variations of travellers, who write from information and from memory.

The Russian embassy, consisting of a train of near 700 persons, travelled as a caravan, preceded and followed by detachments of infantry and cavalry, and were near six months upon their journey from Petersburgh to Constantinople. During a great part of that time our author was 'shut up in a carriage, drawn at 'a slow pace by oxen, exposed to the burning rays of 'the sun, suffocated by the dust, torn by thorns and 'brambles, and horribly jolted by the roughness of 'the roads,' and exposed to other small misfortunes, the keen sensibility of which seems to mark him as a young traveller. At last the embassy arrived at Pera, a suburb of Constantinople allotted for the residence of foreigners by the Turkish government. Many ceremonious visits then took place, which are described with sufficient, though not tedious minuteness. But we hear not one word of the object of the embassy.

Our author draws a pretty favourable character of the Turks.

'In the course of my rambles I have had frequent occa-'sions of experiencing the politeness of the Turks, which 'proves to me that this nation is extremely well disposed 'and inclined to oblige, and that the climate alone is the 'cause of the idleness and indifference with which they 'are reproached. The Turk, when offended, or provoked 'to jealousy, becomes terrible, and nothing but the blood 'of his adversary can calm the passion which transports 'him. During my excursions in the environs of Con-'stantinople I was frequently a witness of the obliging 'and hospitable propensities of this people. The first 'Turk I applied to when I wanted directions in regard to 'the road I was to take, always offered himself as a guide, 'and with the same readiness presented to me a part of his 'food or refreshment.' 'The more the Turks are known, 'the more they are beloved for their cordiality, their frank-'ness, and their excessive kindness to strangers. I am not 'afraid to assert, that, in many respects, they may serve 'as models to my countrymen.' pp. 201, 237.

However good the character of individuals may be, it is evident that the Turkish government is calculated rather for the depression or annihilation of the human race, than for promoting the happiness of the subject, the only rational purpose of government.

'Not more than a fortieth part of [Wallachia] is tilled. 'The cultivator only sows what he considers as sufficient 'to serve him for the necessaries of life, under the appre-'hension that the boyards or lords, who take the utmost 'care that these unfortunate peasants [shall] retain no more 'than what will suffice for their subsistence, may seize 'whatever exceeds that proportion. The misery and idle-'ness, or rather the state of nonentity of the human spe-'cies in these countries, appears almost incredible, when 'the natural excellence of the soil is considered; but when 'reflexion is carried back to the operation of eastern des-'potism, refined by the Hospodars, who are at the same 'moment both slaves and tyrants, there is no longer room 'for astonishment.'

If the Wallachians, and their neighbours the Moldavians, shall ever emerge from their present depressed condition, and, under a rational and beneficent government, avail themselves of the advantages which nature has profusely bestowed upon them, and of their access to the greatest natural inland navigation in Europe, they may become the first people in the central part of the old world in a commercial and political view, and assume a very high station in the system of Europe.

These are some Specimens of the information and instruction, which, notwithstanding rather a redundancy of egotism and minute incident, are contained in this work.

Histoire d'Italie, depuis la chute de la République Romaine jusqu'aux premières années du dix-neuvième siècle, par Ant. Fantin Desodoards, à Paris 1803.

The History of Italy, from the downfall of the Roman Republic to the first years of the nineteenth century, by A. Fantin Desodoards, 9 vols. 8vo. imported by Gameau and Co.

"To instruct and please," says the author of the work before us, "is the arduous duty of the historian." Satisfied of the correctness of this theorem whereby he professes to have been guided in the composition of his narrative, we proceeded with higher expectation to the perusal of this new history of Italy, than we are apt to conceive of the merits of historical lucubrations, which we receive from the Republican press. But having waded through the voluminous work with unwearied patience and attention, we have to perform the painful task of declaring in the most positive terms, that the author has completely failed in the performance of the first and most essential part of his acknowledged duty, "to instruct." The first seven volumes, which bring down the history of Italy from the subversion of the Republican form of government at Rome to the dawn of the French Revolution, do not make any valuable addition to our stock of historical knowledge, nor diffuse new lights over any period of the history of that far-famed country. The rest of the work is little more than a synopsis of the French Revolution, abounding with statements, mangled and incorrect, and with information resting on evidence which a historian, conscious of the dignity of his office, would disdain to admit. The following allegations will, we trust, convince our readers, that our charges, heavy as they are, have not been advanced on slight grounds.

The author having found it expedient to introduce a narrative of Bonaparte's unprovoked invasion of Egypt into the history of Italy, accounts for the retreat of his *unrivalled* hero from Acre in the following terms. (A) "It was difficult to repair the losses "daily sustained by the French; *the town of Acre* "*received by sea all necessary supplies*, and the *prin*-"*cipal* end of the expedition was attained by the de-"feat of the Turkish army." He mentions the breach made by the besiegers, but not the slightest mention is made of the British Leonidas, who defended that breach and rendered it impenetrable to the *invincible* conqueror of Lodi and Arcole. A very unsatisfactory account of the assassination of the French ministers *Roberjot* and *Bonnier*, in the vicinity of Rastadt, *Desodoards* hesitates not to commence by saying: (B) "They had scarce left the "town, when they were attacked by *the hussars of* "*Szekler*:" and to conclude as follows, "the veil, "which covers that murder, has not yet been removed, "and probably will never be withdrawn." If *Imperial* troops, for such are the hussars of Szekler, murdered the French ministers, without robbing them of any of the valuable articles they found about them, the heinous deed is unveiled, and its execrable authors stand arraigned at the bar of this age and posterity. But our readers, who are probably no strangers to the course of investigation which followed the perpetration of that murder, will hardly expect we should enter upon a refutation of so calumnious and contradictory a statement as that of our author. Desodoards gives us, further, a minute account of the violent death of Paul I. and the vouchers of that important piece of information are a paragraph, inserted in the *Times*, and a "*relation qui nous est parvenue de cet événement extraordinaire*," which, by his own confession, leaves the very material point extremely doubtful, whether the Emperor's death was premeditated or accidental. That the author of a history of Italy, printed at Paris in 1803, should idolize Bonaparte, they who are acquainted with the present state of the press in France, will easily conceive. But the man who censures *Machiavel* for having compared *Cæsar Borgia* to the greatest monarchs, (D) ought to have restrained his pen from writing down the absurd hyperbole, (E) "that Bonaparte, possessed of equal powers with Frederic the Great for planning the operations of a campaign, knew *far better* the art of leading men to great achievements by the movements of the soul," than the monarch, who knew how to lead an army from the most calamitous defeat, attended with the loss of upwards of one hundred pieces of ordnance, to one of the most signal and decisive victories ever obtained. No military man, who has studied the plans of the campaigns, nay of single battles of the two warriors, will allow that Bonaparte is in that respect possessed of equal powers with Frederic the Great; and in every other point of view a comparison of the Prussian monarch with the ci-devant "Cittadino d'Ajaccio," is a parallel between the lion and the fox, which an observer, as biassed and superficial as our author, cannot be prepared to draw.

From the strictures which, in our capacity of impartial Journalists, we have been obliged to pass on the work under consideration, it must be tolerably evident, that Desodoards has not fulfilled the most essential part of the duty of an historian, "to instruct." How far he has succeeded in the performance of the second part, "to please," shall now be stated with that conciseness of observation, to which we are restricted by the limits of our journal.

His style is lively, elegant, correct, *and in general chaste*. We have met with but a few exceptions; "volcanized minds;" "Geniuses wafting on the wings of the winds, generals from Egypt to France;" "People, living two centuries in two years;" and the like revolutionary jargon. His reasonings are frequently just, and his sketches of the state of Italy, at the different periods he describes, are for the most part well designed. Readers, who are delighted with historical compositions in *Voltaire's* manner, will not be displeased with the Narrative before us, with regard to which we lastly observe, as a novelty, that the Republican year appears neither on the title-page, nor in the body of the work.

(A) Vol. ix. p. 176. (B) Vol. ix. p. 52. (C) Vol. ix. p. 370. (D) Pref. p. viii. (E) Vol. viii, p. 262.

LITERARY INTELLIGENCE.

Britain.—A new work, entitled, *An accurate Historical Account of all the Orders of Knighthood at present existing in Europe*, has just been printed in English at Hamburgh, in 2 vols. 8vo. dedicated to LORD NELSON. It contains, prefixed, a critical Dissertation on the ancient and present state of those Equestrian Institutions, and a prefatory discourse on the origin of Knighthood. And the whole is interspersed with illustrations, and explanatory notes. The author is an officer of chancery, of the equestiran, secular, and chapteral order of St. Joachim.

We committed in our last a mistake in the name of the gentleman, who has brought home a number of ancient

manuscripts from the island of Patmos. It is Mr. E. D. Clarke of Jesus College, Cambridge, to whom the learned world is thus indebted. We have since received intelligence that the number of these manuscripts amounts to above 100, written in all languages. The most important of them, are the following:—

1. The Plato, mentioned in our last.
2. A Hebrew manuscript of the Bible of great antiquity, written by Karean Jews, in the Crimæa.
3. A very ancient Greek MS. of the Gospels and Epistles.
4. The Lexicon of St. Cyril, of Alexandria.
5. Greek Poems, accompanied by ancient Greek musical notes.
6. A Copy of the Gospels in the Coptic language.
7. The Same, in Æthiopic or Abyssinian.
8. The Same, in very ancient Arabic.
9. A Manuscript from Mount Athos, of the Orations of Demosthenes.
10. A Manuscript of the Works of ten Athenian Orators, some of which are unknown.
11. Manuscripts of the Latin Classics of the 11th and 12th centuries.

The Antiquarian Society were a long time engaged on the Berkeley Horn Book; they are at present occupied with a very curious Horn Book of Queen Elizabeth, communicated by Sir W. Foulis, through Mr. Ferner.

France.—The university of Boulogne has been re-established in the following manner, by a decree of the First Consul.

FIRST CLASS.

Physics and Mathematics.

1. Elements of Geometry and Algebra.
2. Introduction to transcendental Mathematics.
3. Application of Mathematics.
4. Transcendental Mathematics.
5. Astronomy.
6. General Physics.
7. Experimental Physics.
8. Natural History.
9. Anatomy, and clinical Surgery.
10. Materia Medica.
11. Pathology and (*medicine legale.*)
12. Clinical Medicine.
13. Botany.
14. Agriculture.
15. Physiology, and comparative Anatomy.
16. General Chemistry.
17. Pharmaceutic Chemistry.
18. Chirurgical Institutions.

SECOND CLASS.

Morals and Politics.

1. Civil Institutions, and (*art notarial.*)
2. Criminal Institutions, and criminal Process.
3. Civil Law.
4. Moral Philosophy, and the Law of Nature.
5. Law of Nations, Public Law.
6. Public Economy.
7. History and Diplomacy.

THIRD CLASS.

Literature.

1. Numismatic Archæology.
2. Grecian Language and Literature.
3. Latin and Italian eloquence.
4. Oriental Languages.
5. Analysis of Ideas.

This is a curious document to such persons as are not intimately acquainted with French institutions, of the manner in which the higher branches of education are taught in France. If the chairs here described be well filled, and the duty of them well performed, a very complete education, it is evident, may be obtained at Boulogne. The physical, and mathematical part obtains by far the greatest share of attention, and on the whole, it is best divided and arranged; though we cannot understand for what reason the professorships of medicine, and surgery should be mixed with those of general physics, and not placed by themselves. If the classes be attended by the students too, in the order in which they are here arranged, it seems odd that languages should come after the sciences. What could be the reason of arranging the *Analysis of ideas*, or what we call philosophy of the human mind, with the study of the languages? We do not easily see the distinction between civil institutions and civil law, nor that between the law of nature, and the law of nations, which should make them be assigned to different chairs. We scarcely think that Numismatic archæology, notwithstanding its fine name, deserved to obtain a chair in a University.

The chief things which we think worthy of remark with regard to the choice of professors, is, that Aldini, the gentleman who has lately made the curious Galvanic experiments here, is appointed, along with Giovani to the chair of experimental physics; and that a lady, Mademoiselle Clotilda Tambroni, is appointed to that of the Grecian language and literature.

Larcher's Herodotus—We are pleased to see that in the edition of the translation of Herodotus by Larcher, he has made the *amende honorable* for the reflections he had thrown in the first edition on the Mosaic account of the early ages of the world, and has allowed the authority of the Holy Scriptures, to be better than the idle fables picked up by the Greek Historian from the Egyptian Priests.

The following curious Literary Institution in Paris we shall describe in the words of the French Journal which lately announced it.

Peace beholds every day the formation of projects which vie with one another in utility, that of a *Cabinet* (council) *of literary relations* is as ingenious as necessary, in the central point of a state, peopled, if we may be allowed the expression, in every quarter, with artists and men of learning, who have no common means of communication. The establishment of citizen Louet, a man of letters, offers that advantage, so long desired by all literary persons at a distance from the scene of intelligence; he offers them an easy and cheap method of a mutual communication of ideas, by which they may aid one another in their labours, and receive power from the reciprocity of their ideas. The modest director of this establishment has united with himself a number of distinguished men of letters and artists; to whom he makes it a duty to communicate all the particulars concerning which he is consulted: he undertakes to cause the necessary enquiries to be made in this capital of the learned world, relating to the species of study, of the men of letters or artists in the departments, the publication of books, the representation of plays, and every thing which can interest, either the young man just entering upon the career of letters, or the man who has already established his reputation.

This establishment, the only one of the kind in Paris, is connected with a cabinet of civil affairs, already known. Applications to be made to Citizen Louet, director, Pont-aux-Choux, No. 755, Paris.

A man of very considerable eminence in the republic of letters, died at Paris on the 5th of this month, at a very advanced age. This was CASTI, by birth a Florentine, whose high reputation procured him the succession, on the death of Metastasio, to the title of Cesarian Poet at the court of Vienna. His last work was an allegorical poem in three volumes 8vo, entitled *Gli Animali Parlanti*, in which not only matters of criticism, but of state are treated with a boldness, which rendered Vienna not a very agreeable residence for him. He chose Paris as the place of his retreat; where, returning home from dining with the Spanish amb

sador, on foot, in a very cold night, he was attacked with a bilious colic which put an end to his life. The probity disinterestedness, and friendship of his private life are said to have distinguished him no less than his genius.

A new map of the river Nile, on a scale of vast size, (22 sheets) is about to be published by authority of the French government.

La Harpe, whose indisposition we noticed before, died at Paris, on the 9th inst.

Prussia.—The value which the King of Prussia sets upon literature has been strongly manifested by two of his late actions. Kotzebue, the celebrated German dramatist, whom the emperor Paul sent to Siberia, has lately taken up his residence at Berlin, and has begun to publish a Journal entitled *The Sincere*, on subjects of general literature and politics. The king has thought fit to send him the following letter:—

"His Majesty the King of Prussia is extremely glad to "see M. Von Kotzebue at Berlin, whose writings, and in "particular whose theatrical productions have long charmed "the public. His Majesty, pleased with the talents of "M. Von Kotzebue, as well as with the use to which he "applies them, desires to give him such a proof of it as "may engage him, if not to settle in Berlin, at least to "prolong his stay. For this purpose, his Majesty has this "day ordered the Academy of Sciences to receive him in "quality of an honorary member, and as soon as there "shall be a vacant place in any of the classes, whether of "philosophy, anatomy, or history, to elect him an ordinary "member. His Majesty has, at the same time, granted "to M. Von Kotzebue the reversion of a prebend in the "chapter of St. Nicholas at Magdeburgh, with permission "to wear the canonicals of the chapter, on condition of "bearing a part in the usual expences. His Majesty has "accordingly given the necessary orders to M. Von "Massow, minister of state; and in communicating all "this to M. Von Kotzebue, avails himself with pleasure, "of the opportunity of giving him, at the same time, "the assurance of the good will with which he is his "affectionate

"FREDERIC WILLIAM."

This letter from a king to a mere author, is a fine production of a great and cultivated mind; and if it be at all in concord with the general strain of his thoughts, and not the capricious effusion of a happy moment, many improvements may be quickly expected in his country.

The other late act of this monarch, which manifests his love of literature is the augmentation he has made of 8000 crowns to the revenues of the university of Halle, to be paid out of the goods of the convents suppressed in the new possessions received in indemnity. That university has likewise received permission to select from the libraries of these convents whatever it may have occasion for, and to take whatever may be necessary to form a cabinet of anatomy, from that which his Majesty bought from Professor Walter. It is, besides, directed to present a new plan of study, and of organization, which M. de Massow, minister of state, will examine.

The death of M. Herz, professor of philosophy, and doctor of medicine in Berlin, has excited much regret. He is said to have been a man of taste, as well as great acuteness. He was a friend and correspondent of the celebrated Kant. He received from the king a pension of 500 crowns. But the most remarkable particular which relates to him is that he was a Jew, and the first Jew, who has been admitted to the place of a public teacher among the Christians.

Sweden.—The King of Sweden too has given a testimony of his regard for learning and virtue, by raising to the only place of *Consistorial Counsellor* which exists under his government, the celebrated preacher, M. Rose Garten. This gentleman, whose genius and conduct are said to bear a strong resemblance to the immortal author of *Telemachus*, has been not a little distinguished by royal favours. The elector of Bavaria, eminent for so many enlightened actions, presented him last year, with a snuff-box, richly ornamented with diamonds. And some time before he received a ring, accompanied with a very flattering letter, from the hand of the Empress of Russia. The potentates of the North, have been eminently distinguished of late, not for their patronage, but for their friendship to men of learning; for instead of assuming those airs of superiority which mark the former, they have shewn a fondness to take that station of equality which alone is consistent with the latter.

As the useful, the manufacturing, and manual arts will form a chief subject, and we trust a very instructive one in this work; so the elegant arts are destined to receive a portion of our attention. And we shall account ourselves obliged to any artist, whose views it may suit to have his productions noticed in our publication, to transmit us intimation of them. The following are a few notices with regard to Painting, which we doubt not will be interesting to some of our readers.

Dance's work, intended to form a series of engravings in exact imitation of the drawings from his portraits of celebrated characters in the present age, is far advanced.

Westall is at present employed on a picture of the Exposure of Moses. The countenance of the mother is expressive, and the action simple. The lotus is introduced in the fore-ground, and the costume of the country has been remembered. The same artist has lately been making some excellent drawings, for the new edition of the British Classics, by Sharpe.

Daniel, jun. has finished his Views of the West India and London Docks, and is at present employed on a large Picture of London, as seen from Greenwich Park.

Lawrence, has lately been engaged in painting the female part of the Marquis of Abercorn's family. The portraits are very like, and in his best manner.

The British School in Berner's-street, daily meets with fresh Patrons, and is likely to be of considerable use to the arts of this country. Many fresh pictures have lately been introduced.

MANNERS.

THE remarks we advanced in our last Journal on "Knowledge of the World," may perhaps throw some light on certain expressions of great weight and authority. When we hear, that "all the world thinks this," or "all the world does that," we may justly suspect, that this is not the world which is *mapped* in our books of Geography, although we are willing to allow that there are as many dangers, fatal rocks, whirlpools, shipwrecks, and interviews with savage islanders in the circumnavigation of the one as of the other. Yet when reduced to paper and print, when delineated by charts and letter-press, THE WORLD of which we have been speaking will appear much less populous than that which Guthrie describes. In other respects, however, we are ready to acknowledge its superiority over the old composition of land and water; for that must be greatest to which all are subject. In point of population too it has its advantages, if we prefer quality to quantity, being indeed inhabited by none but the *first people*.

When, as the well-known anecdote informs us,

Dean Swift's maid said, "all the world talks of my leaving my master," this was not the language of an illiterate washer of dishes, or sweeper of rooms; but the correct phraseology of that world of which every man fancies himself the centre, from which he thinks that he looks on all, while all are looking on him. Hence it is that *this* world is not an universe, it is not "one and indivisible;" although three or four assemblies may be held on the same night, yet we are assured, that "all the world" was at each of them: and a milliner, suppose Mrs. ——, or Madame —— who declares to Lady Brilliant, that no person whatever but her Ladyship has seen the *Recamier turban*, will in the same breath assure her, that "all the world is mad for it."

From these circumstances it will probably strike our readers who live in remote parts of the kingdom, that the world we have been describing is ideal, and perhaps they will not greatly err in the conjecture. It will even be confirmed in their poor imaginations, when we inform them that by some strange revolution in the creation of this world, it is peopled entirely by WOMEN. This will naturally remind them of a nation of former days, called the Amazons, for the history of whom we refer to books, noting however these few circumstances. The history of the Amazons is reckoned fabulous, because it is the history of women who despised beauty and loved fighting, which is not the case with the modern world of women. The origin of the Amazons is involved in obscurity, but the existence of the world of women appears to have been effected by the annihilation of *husbands*, not one of whom are more noticed than if they were buried under ground.

In order to prove this, we are happy, for the sake of our credit with the public, to be able to appeal to those records of public manners, the morning newspapers, the editors of which have lately bestowed so much laudable industry in the history, topography, curiosities, and customs of this world, that they almost seem to have forgot the other. If we look into these, we find that the *Duchess* gives a grand rout; the *Marchioness* a public breakfast; the *Countess* has a large card party; *Lady* —— has an assembly, and *Mrs.* —— a ball; but from the profound silence they preserve as to the *Duke*, the *Marquis*, the *Earl*, *Sir John*, or *Mr.* ——, we are bound in duty to believe that no such persons exist, for if they had "a local habitation and a name," they could not be passed over by Journalists of such extreme accuracy, as to tell us who were present and what was doing at twenty places, or worlds, in the same night. Nay, that the non-existence of these males is the object of general belief, may be inferred from the total neglect of all inquiry about them, except, perhaps, now and then some creature "whom nobody knows" will ask in a coffee-house, who the husband of the Duchess or Countess is? and by a kind of logic, not very much in vogue, draw the inference, that where there is an expensive *lady*, there must be a liberal *lord*.

Our readers, however, are not to suppose, that because this world is *ideal*, all the circumstances belonging to it must be *imaginary*. Whatever may have been the case with the Amazons, a government of women could not in our days long subsist without a certain interference on the part of the other sex, but what that degree of interference is, and in what proportion the mixture is compounded so as to preserve the breed, are *arcana* which, for the present, shall be left to conjecture. It may suffice to remark here, that a *gynarchy* is completely established, and the use of *man-kind* so far dispensed with, that even the stewards of a ball are publicly advertised of the fair sex, and *Lady Directresses* and *Lady Presidents* are *officers* as common as if no men existed, or had refused to take upon them the fatiguing and masculine parts of fashionable arrangements.

But these, it must be confessed, are modern innovations, and it is our wish that our accounts may be not only *statistical* but *historical*. With the latter view, then, we may mention, that the WORLD which is the subject of this paper, was anciently confined to that part of the metropolis called Westminster, and consisted of little more than two parishes, St. James's and St. George's, with a small part of Marybone. For whatever reason (antiquaries are not agreed) a wall of considerable breadth and thickness divided this world from the city, and the chief gate, called Temple-Bar, was for many years guarded with invincible constancy. The manners of the city at that time were as different from those of *the world*, as the manners of *the world* are now from those of the Eskimaux Indians; and this difference was kept up for a long time with uncommon pertinacity on both sides. However it might be lamented, that such near neighbours should differ, all attempts at reconciliation were found impracticable, until the citizens, panting for fresh air, as it is said, threw down their walls and their gates, and determined *per* force to invade their neighbours of the great world. To do this with success was long found to be extremely difficult, and every attempt to sally forth in *large parties*, to breakfast in the open fields, or to put off dinner until appetite was gone, only exposed the assailants to ridicule, and they were opposed so vigorously by great *titles* and vast *estates*, that they began to despair of colonizing beyond their own territories.

At this period of embarrassment, *chance* did for them what their prudent counsels could never have effected. A kind of mutiny took place in the enemies' camp, and estates were torn in pieces and flung at the heads of a set of conjurors who played tricks with small pieces of pasteboard, and small cubes of ivory; this brought on a general disaffection amounting to a kind of lunacy, and when the fits were over, and the disease had abated, the patients found themselves in a poor low way, and scarcely able to hold up their heads. They seemed now desirous to enter into terms with the very neighbours they had formerly despised, and some secret negociations were begun, which, however, most historians think would not have been definitive, if the citizens had not by some means discovered certain mines in the East and West Indies which abounded in a kind of metal that enabled them to cope with their once-powerful neighbours. Flush with this discovery, they began to listen to terms, and in the course of a few years extended their territories westward, took possession of a considerable part of the parishes above-mentioned, and by

intermarriages of *quantity* with *quality*, have nearly reduced the whole to an uniform mass, so that "the world" is as familiarly mentioned on 'Change as in Pall Mall, and all *worldly* matters are transacted in the city with as much *eclat* as in any part of Westminster; and, if our information be not incorrect, the routs are as much crowded, the variegated lamps are disposed in as elegant festoons, the fruit is as unseasonable, the company put to as much inconvenience, and the neighbourhood as much disturbed, as is requisite to rescue a column of a newspaper from the vulgarity of continental intelligence, or the tediousness of a parliamentary debate.

This union being effected, historical records have little more to do than to mark its consequences: and among some of the most beneficial of these, is the elevation of names formerly confined to the 'Change or the London Directory, to all the paragraphical honours which newspapers can bestow; still, however, with the total omission of all mention of *males*, and with the same attention to hand down to posterity the liberality of *Mrs.*—— and *Mrs.*—— and *Mrs.*——. In a paper now before us, we read that "Mrs.—— gives a splendid entertainment this night in Finsbury-square." By the *world*, who will no doubt be *all* there, the importance of this notice must be only estimated. What information it may convey to our children's children is not so obvious.

As the world is confined to the METROPOLIS, so its *history* is confined to the newspapers of the Metropolis, and whoever studies them with attention (of which a very small portion is requisite,) will insensibly acquire much of that *knowledge* which all the cities, towns and villages of the kingdom, put together, can never confer. And it is greatly to the honour of modern newspaper-writing, that their records of manners have within a very short time been carried to an extent and minuteness, which twenty years ago would have been thought inconceivable by an editor, and incomprehensible by a reader. If we look back to the papers of that period, we shall perceive it was no more expected that the names of a card party should be given in a newspaper, than that the names of the persons who happened to walk in the streets should be pasted on the church doors. But to such perfection are our fashionable Journalists arrived, that perhaps they will soon go on to greater extremes. Already those who happen to walk or ride in Pall Mall, or Bond-street are admitted to "honourable mention," and if the same attention shall extend to Cheapside, or the Strand, a newspaper will be able to run parallel with the utmost stretch of human curiosity.

May we not in an age so fertile in these improvements, anticipate a BIOGRAPHICAL MEMOIR, for which these intelligent papers will furnish the materials?

"JEHU, SIR JOHN, a man of great and eminent dash, was born 1771. The first accounts we have of him occur in the papers of June 1792, when he was presented at Court. His dress was a puce-coloured velvet coat, and inexpressibles of the same; his waistcoat white satin richly embroidered, with spangles. It is mentioned by a contemporary historian, that a few days after he was seen walking up Bond-street, arm in arm with the Hon. Mr. Cogdie, but from whence he came that day, and whither he was going, and upon what errand, we have no account.

In the following month, some writers fix July 27 as the date, and some July 29, it appears that he was preparing to leave London for Brighthelmstone, or as it is called by one of our annalists, Brighton; we have not been able to ascertain, however, at what time these preparations were completed, or when this distinguished character actually left town. By a manuscript account, indeed, which we have seen in the hands of an eminent conveyancer, it appears that about this time he had a house in Piccadilly; the probability, therefore, is, that he went over Westminster-bridge, although the precise time cannot be ascertained.

"In the year 1793, Jan. 27, we find him again, "driving four-in-hand up St. James's-street:" that this celebrated transaction should be thus briefly narrated is much to be lamented, but among the infelicities of biographical research must often be enumerated that laxity of relation, and imperfection of intelligence which give us only a transient glimpse of the actions of great men, and which frequently vanishes before it can be caught. This is the more to be regretted in the present instance, as the event now recorded is the only one we find in his history for the whole year.

"In the following year, memorable for the calamities of Europe by a revolutionary and ferocious war, we are called to admire the pacific philosophy of our hero, who on the 22nd of May gave a public fête, at which the following persons of distinction were present *(Here four pages of names)*. Soon after we learn that "he had some thoughts of disposing of the Northamptonshire estate," but there is a chasm in this intelligence which it would be desireable to fill up. Some light may, perhaps, be thrown upon it, when the reader is told, upon the authority of two newspapers, that he was four times at Brookes's in the course of the season.

"From this time, by what fatality we are not told, he began to wear out of *ton*. According to some accounts, he withdrew the usual fees of newspaper office, but this is doubtful, as we find a very long extract from the porter's books of no less than six ladies, in each of which extracts his name is mentioned. Gratitude for former favours might perhaps incline the Editor still to retain his name, or it is more probable he might be induced to do so, by a wish to prove to the public the superiority of his intelligence over that of his contemporaries. Many interesting particulars, however, may now be found of his history in the volumes of the Racing Calendars, a performance to which posterity will resort with equal eagerness and edification.

"In 1796, we are told he launched a Vis-a-vis, the pannels, hammercloth, and lining of which are described with a minuteness which does credit to the historians of Long-Acre, who at this time entered into a partnership with the diurnal writers, and appear to have furnished them with articles of uncommon splendour and elegance.

"The last action of his life of which we have any

record is in these words, "Yesterday Sir John Jehu passed an hour in a fruit-shop in St. James's-street." Whether the fruit was pernicious in quality, or too much in quantity does not appear, but we hear no more of him for two years, when his death was announced in due form, and his elegance, liberality, taste, *ton*, and genius displayed in glowing language.

Such are the memoirs of this truly eminent character. For their brevity no apology would be sufficient, had it been voluntary, but we have given all that we can find upon record, and are less desirous of the praise of romantic invention, than of biographical fidelity. Half a century is now expired since he departed from THIS WORLD, and the profound silence which has been preserved relative to his life and character deprives us of adding to what his contemporaries have handed down. That they should have told us so little is to be regretted, but that they have told us so much, and were able to gratify the curiosity of the public by such circumstances, is not an idle reflection, since it may stand prominent among the early *memorabilia* of the nineteenth century."

R. S.

POLITICS.

THAT spirit of improvement, diffused through Europe, which we described in one of our first numbers, daily exhibits itself to a degree which we durst not have ventured to predict. The following are some recent instances:

Russia.

The emperor has lately nominated a commission, who are to be employed in drawing up a new code of laws; according to the model of the Prussian code.

He has purchased a considerable tract of land in the neighbourhood of Kamenoi-Ostrou, which he is to have cultivated by English farmers, and according to the English agriculture.

He has ordered two ships to be got ready to set out upon a voyage of discovery, on the northern coasts of America and Asia. Captain Krusenstern, it is said, will have the command of the expedition.

Bavaria.

We congratulate the elector of Bavaria, and his subjects on the important improvements which he is introducing into his dominions. We mention at present his proclamation for religious freedom, and toleration both in his old and new possessions. By this law, all christian persuasions, established or to be established shall have the full enjoyment of all civil rights, both active and passive; no exclusion shall be exercised towards any man on account of his religious profession; in nominating men to the public offices, the elector will chuse those whom he judges most worthy, without making any distinction among the three religions introduced into the German empire. Nothing shall ever be required of any individual, in the least degree inconsistent with his religious principles, or his peace of conscience; those who do not form a particular community for the exercise of social devotion shall not be disturbed in their domestic worship; no member of one communion shall be obliged to observe the festivals of another; he may attend to his affairs, provided he disturb not the worship of others; the elector will neither interfere in the internal affairs, or the creeds of the churches, except by the duty of superintendance and police attached to the supreme power of the state.

The elector concludes this memorable edict, which yet has no example in modern Europe, with the following words.

"We expect the more confidently that our subjects will not mistake the beneficent, and paternal intention of this decree, because it has no other object, but the advancement of their well-being, and of their virtue; and because it is entirely founded upon principles generally acknowledged, and imperiously prescribed by the pure and incorruptible morality of that standard, to which all Christian systems are referred."

We mention this edict with, perhaps, an additional degree of enthusiasm, because a benevolent philosopher, in whom we too have not a little interest, has in all probability had a great share in its formation. His patriotic master and he, have our admiration, and our warmest wishes for success to them in their enlightened, and virtuous operations.

Austria.

The new system of administration for the military department of the government of Austria, which has been the subject of so much conversation on the continent, is at last published; and as that government is to so great a degree a military government, so total a change in that department amounts to nearly a complete reformation of the whole government of the state.

The Rescript addressed to the counsel of war of the court, and to the general officers, respecting the new arrangements, begins with noticing the more important inconveniences arising from the old forms; that the military affairs, not only during peace, but war, were decided in the last instance by a council composed chiefly of the members of the civil department, persons by consequence not acquainted with these affairs; that extreme disorder arose from the improper distribution, and division of the business, the same thing being often discussed in different departments and decided opposite ways; that the attention of the council was often called to trifling affairs; that the manner in which business was conducted in the council was so imperfect, that it was impossible for the generality of the members to obtain clear ideas of the business, about which they were to vote; that the mode of deciding by scrutiny, was inconsistent with the heterogeneous nature, of the business which came before the council; that the proper division of labour equally useful here as elsewhere was totally neglected, the director of the department of provisions not being the proper director of the department of clothing, nor either the proper director for recruiting the army; that a most pernicious retardation of the most important affairs often took place from the adjournment of them by the council from one sitting to another, even when the greatest interests of the state were threatened; that it has hitherto been necessary that every expedition should be signed, not only by the first counsellor of war, but by a counsellor of justice too of the court, though totally ignorant of the matter which he

signed, and by consequence incapable of being rendered responsible for it.

"From the moment," says the Archduke, "that I took upon me the military administration, all my thoughts, and all my efforts have been employed to simplify the conduct of affairs, in order to introduce more harmony, more order, and more energy into the war department, by conducting it, with the least possible expence, to a certain degree of perfection, I was obliged to proceed softly and to act with the greatest precaution, that by the reform of some abuses, I might not produce inconveniencies of another kind."

"After having obtained the requisite information respecting every particular, I thought it my duty to lay before his Majesty my plans respecting a more simple distribution and division of the business in the council of war of the court, which at the same time was more regular, and more commodious; and from which results, in the first place, the suppression of 50 places in the central administration of the department, and a saving of 75,000 florins of salaries without reckoning the expence of offices.

"His Majesty has been pleased to approve these plans; and the following arrangement has, in consequence been adopted."

Distribution of the Departments of the Council of War of the Court

They are composed,

I. Of the Military Division.

II. Of the Division of Political Economy.

III. Of that of Justice.

I.

The Military Division is sub-divided as follows,

1st. *The Direction of the Military.*

This comprehends whatever relates to the general, and other officers of the different corps, excepting the artillery and engineers; the merit of the candidates for the place of an officer, promotions, pensions of general officers, discharges, permission of the marriage of officers, the distribution of the military orders of Maria Theresa, Elizabeth, &c. It has the direction, besides, of the exercise, the service, and manœuvres of the infantry and cavalry, of their armament; in a word, of every thing relating to the organization, the exercise, the evolutions, and whatever concerns the perfection of the army.

2d. *The Direction of the Artillery.*

The founding, and reparation of guns, of every weight, the manufacture of gunpowder, the furnishing of arms and ammunition to the troops, &c. the conduct, character, and discipline of the men, and whatever concerns the business of artillery belongs to this sub-division.

3d. *The Direction of the Engineers.*

This has the charge of every thing relating to fortification, and in general, to the condition and employment of the engineer and the miner.

II.

The Division of Political Economy.

This Division comprehends the following Departments.

1st. The department of recruiting, with regard to the complement of the army both in men and horses. Desertion too, and mortality in the army, invalids, discharges, prisoners of war, the baggage, and horses come under its jurisdiction.

2d. *The Department of Clothing and Equipping.*

3d. *The Department of Provisions and Forage.*

4th. *The Department of Health.*

5th. *The Department of Accountability.*

6th. *The Office of the Minister of War.*

III.

The Division of Justice.

This division will hereafter be composed of three departments; of which the one will be occupied with the marine affairs of Italy, and Dalmatia; the other with those of Hungary and Transylvania; the third with the affairs of Bohemia, Moravia, the two Gallicias, and the hereditary States of the House of Austria.

A few regulations are added for expediting and conducting business according to this arrangement, and the Archduke, to whom it is owing, is placed at the head of the whole.

The famous Aulic council of war, originally contrived at Vienna, by Field-mareschal de Lascy, is thus destroyed; and its fall has occasioned the liveliest joy through the whole Austrian army; its ignorance, and intrigues are accused of the late decline of the Austrian Monarchy; and enthusiastic demonstrations of satisfaction appear both in the capital, and provinces.

It cannot but give pleasure to every enlightened mind to observe, that the marine affairs of Venice have entered for so large a share into this reform of the Austrian Government. We have already stated our opinion of the power which this sea-port possesses to introduce commerce and industry into the Austrian dominions, and of the vast improvement which they are thence capable of receiving; and we sincerely hope, from the attention which that object appears to have attracted, that the Austrian Government is sensible of these advantages; and that by the cares of that active and patriotic prince, to whom this department is now submitted, commerce will be soon seen to fill once more the harbour of Venice.

France.

Much expectation is raised in Paris, of the advantages to be obtained by that city, from carrying to it, by a canal, the river Ourcq. It is to be conducted from Mareil, above Crony to Villette, where is to be the reservoir, in a line, about 90,000 French measures in length, and takes in the two little rivers Troenne and Beuvronne in its course. These waters, on their arrival in the reservoir, are computed to make 12,000 inches of water. The descent from Mareil to Paris is more than nine measures; and the elevation of the reservoir at Villette is not much less than 16 measures, above the highest waters of the Seine. A late decree of the consuls has given great activity to the work. And conversation is full of the projects, for cleanness, health, manufactures, and commerce; of the aqueducts, the baths, the public and private fountains, the ornaments of gardens, the security against fire, the domestic accommodation, and the other happy results to be expected from its termination.

America.

Beside all other advantages derived from North America from her late enjoyment of tranquillity,

while so many other parts of the world were torn by factions and wars, the direct augmentation of her inhabitants is said to be great. The inhabitants of the French West India islands, carried there not only themselves, but whatever else they could save from fire, and the sword. Numbers of the Irish went to America during the late disturbances in that country. Thousands of families repaired thither from the Netherlands and Holland, when overrun by the French. The spirit of emigration prevails strongly in Switzerland, particularly in the Pays de Vaud, and Bâle; and the greater part of these voluntary exiles take their course to North America. We have the authority of a newspaper too for a very curious project of a Scottish lord to purchase land in America, and send out Scotchmen to cultivate it.

Hamburgh.

The emigrations which are at present taking place from Hamburgh are the necessary effect of the decay of her trade. During the war, by which we were shut out of the ports of France, and Holland, Hamburgh was the channel of the whole of our commerce with the continent. Now a more direct communication is obtained. And both the capital, and the labour which was employed in transmitting our goods to the different countries, where they were demanded, must now look out for a different place of employment. The senate by a late edict opposes these emigrations; but if the people were wanted, there would be no occasion for restraint to keep them at home. The opposition indeed is apparently the gentlest possible, and seems no more than what is perfectly reasonable, and even necessary. Those who present themselves for the purpose of going abroad are obliged to answer to the questions of the captain of the port; Whether they have maturely weighed their design; and if they have any notion of the country to which they mean to repair? These questions seem admirably calculated to rectify the absurd dreams of some heedless wretches, who embark for a foreign country, as ignorant of it, or what they can do in it, as of the next world. If they so much as hesitate in their answers they are carried before the magistrate. We should like to have been told what is done with them before the magistrate. If he reasons with them, and by reforming them, retains them volnntarily, it is admirable. But if they are merely reviled, and ordered to remain at home, this is cutting the matter rather too short. It is easy to find reason to say a man hesitates. Besides, though there doubtless are cases wherein it may be just to lay such a restraint upon the natural liberty of an innocent man as to keep him in a country which he wishes to quit, we believe these cases are very rare.

ON THE CHARACTERS OF THE IRISH.

In every civilized nation we find three prominent classes of people; the respective numerical strength and political importance whereof, are proportioned and varied by the peculiar circumstances of the nation. In England, for instance, owing to the operation of certain causes, which, on the present occasion, it would be superfluous to assign, the central class of the community actually approaches much nearer in point of number to that below it, and is infinitely more preponderant in the political system, than that of Ireland. On the other hand, the lowest class in the latter country, (in which I would be understood to include all persons below the condition of the substantial yeoman) will, if considered in every point of view, appear to merit a much greater share of attention, on the part of government, than that of the former.

In each of the three classes we may discover a considerable number of appropriate qualities or characteristics. They all possess, with individual exceptions, a few qualities in common. These are the ingredients of the general character of the nation: those the constituent parts of the predominant characters therein. The first, resulting for the most part from physical causes, are generally immutable; the last, being altogether the productions of moral causes, are susceptible of modifications, and perpetually subject to change. To both a strict regard seems absolutely requisite to the perfection and ultimate success of all measures, devised for the two-fold purpose of preserving the internal tranquillity of a free country, and facilitating the agency of its executive power.

Various circumstances have conduced to occasion in Ireland a much greater departure from uniformity of character, than is observable in England. Universal or pervasive habits, principles, and qualities, are certainly more numerous here than there. In other words, there is a stronger resemblance, in point of character, between the three classes in this, than in that country.

Notwithstanding the diversified intercourse which has long subsisted between the people of these two islands, it is certain, that few of the appropriate qualities or characteristics, exhibited by the different classes of people in Ireland, are generally known in England; and it is no less true, that these few are, for the most part, indiscriminately, and of course improperly, applied to the Irish at large. Nor do the people of England seem wholly free from error, even with regard to the qualities common to almost all the natives of Ireland.

Indeed, if it be considered, that the opinions most prevalent in this country respecting the characters of the Irish people, have been derived either from the accounts of travellers, who appear to have laboured under strong national prejudices and political biases;(A) or from the accounts of factious Irishmen interested in aspersing and misrepresenting their countrymen; or from the conduct and principles of those needy and profligate Irish adventurers, with whom this country has always been over-run, and whose characters, generally speaking, appear to infinite disadvantage when compared with those of their countrymen at home, it will not be wondered at, that such opinions should be equally erroneous and unfavourable. In fact, it is well known, that many Englishmen, who went to Ireland teeming with contempt and detestation of the people of that country, after a few years association with them, returned to their own, with a disposition to become, on all occasions, their strenuous encomiasts.

With regard to the following sketch, I shall say

(A) I particularly except that liberal and intelligent gentleman, and truly valuable member of society, Mr A. Young.

thus much only: that it owes its origin solely to a persuasion of the actual necessity of disclosing the *real* characters of the Irish, in order to their being suitably governed; on which, I am disposed to think, the welfare, if not the stability of the British empire, does, in a special manner, depend; and that, however imperfect and unsatisfactory it may be deemed, it has at least the advantage of being drawn with studied impartiality, by one who has exercised in Ireland, for a considerable number of years, all the various relationships of social life.

The qualities, opinions, habits, and principles of the lowest of the three more prominent classes of a nation, are seldom so narrowly canvassed as those of the other two. I apprehend, however, it might with little difficulty be shewn, that an accurate scrutiny of the former would prove as subsidiary to the art of governing, as a similar scrutiny of the latter: in some cases, much more so. Were I, for instance, to confine this observation to Ireland, I think I should find myself fortified with such reasons as could not easily be overpowered. With this impression, then, I shall direct my chief endeavours to analyse that character, which I have found to predominate in the lowest class of the Irish.

The people of England have hitherto been in the habit of freely bestowing upon this class the epithets blundering, doltish, ignorant, in addition to others more severe and better grounded. Nay, there have not been wanting many who seemed disposed to believe that these epithets were, in some degree, applicable to the Irish in general. An uncouth, and sometimes unintelligible phraseology, gradually introduced amongst the natives of Ireland, in consequence of literal translations of the vernacular idioms of the Irish into the English language, might naturally have generated a suspicion on the parts of many superficial persons in this country, that, in point of intellectual abilities, the Irish were considerably their inferiors.(B) Even in the best informed circles it is no uncommon error to measure the understanding of a man by the accuracy and fluency of his speech. That the epithets above-mentioned are, however, wholly inapplicable to this class of the Irish is a truth of which every Englishman, who may happen to make Ireland his place of residence, will very speedily be convinced. Far from being inferior, they have appeared to me infinitely superior to the same class of the English community in an intellectual point of view. Generally speaking, they possess a degree of subtlety rarely to be met with amongst the same description of people in any country. The majority of them are perfect masters of the courtly arts of penetration and dissimulation; especially the latter. It is truly astonishing to see how readily many of them will discover the true characters and ruling passions of those they have to deal with; and what an unembarrassed air they will manifest when assuming and sustaining whatever character or appearance emergent circumstances may require. They are to an extraordinary degree inquisitive and communicative: their memories are surprisingly retentive; they are fond of wit; and set so high a value upon learning, that the poorest labourers will often appropriate a part of their scanty earnings to the education of their children. The more abstruse parts of arithmetic, and also mensuration and navigation, are taught in the poorest unendowed schools in Ireland. The art of writing is often carried almost to its utmost perfection amongst the people of this class: and their attainments in orthography and perspicuity of style have frequently, to my knowledge, excited the amazement of strangers.

The quality of courage they are generally admitted by the English to possess in a high degree. This quality, however, which indeed seems to be uniform in the province of Ulster and part of that of Leinster, may be said to be conditional in the other parts of Ireland. On ordinary occasions they appear to exhibit neither more nor less courage than other people. Under certain circumstances I have seen many of them betray a deficiency of that quality. But when about to suffer in a favourite cause, or with a persuasion of the justifiableness of their offence, they generally display almost inconceivable fortitude and composure; such as never was surpassed, perhaps seldom equalled by any hero or philosopher of antiquity. And when commanded by those who have long enjoyed their confidence, respect, and affection, they not only manifest the most undaunted courage, the most heroic intrepidity, but equal any, and excel most of the nations of Europe in the general aggregate of military virtues.

They have been reproached for cruelty; and apparently not without sufficient grounds. Their cruelty, however, is certainly less the effect of a sanguinary vindictive disposition, than that of an extravagant, enthusiastic, maddening zeal for the complete success of some favourite cause. Their excessive hospitality, their native good-humour, their boundless charity, their uniform readiness to oblige and assist, their general benevolence, their singular sociability, and their uncommon propensity to commiseration, which, often at the risk of their lives, and frequently, it must be owned, to the detriment of society, they will gratify in behalf of the persecuted, whether innocent or in fault, all of which are confessedly more or less incompatible with a sanguinary disposition, may be offered as so many corroborations of the justness of this remark. They have also been censured for sloth. They are, however, occasionally indefatigable, as Mr. Young has testified.(C) And vast numbers of them possess a most singular spirit of enterprize, which no difficulties can abate, no obstacles check, and no disappointments extinguish.

They have likewise been accused of perfidy; and no doubt have shewn themselves perfidious on various occasions. But when voluntarily and heartily engaged in a cause, they have been known to exhibit unparalleled fidelity; fidelity not to be shaken even by the prospect of death. I cannot, therefore, admit perfidy amongst their decided characteristics.(D)

They are certainly, for the most part, thievish,

(B) If an Englishman, in France, were to make use of literal translations of the idiomatick expressions, "What o'th' clock is it, it is within ten minutes of twelve, the fire is gone out," &c. I fancy he would impress the minds of many of his hearers with no very favourable opinion of his understanding.

(C) Tour Vol. ii. p. 23, and in other places.

(D) "The natives of Ireland, says Dr. Petty, have been accused of treachery, falseness, and knavery: none of which I conceive to be natural to them." Political Anatomy of Ireland, p. 307.

lawless, dishonest and destitute of a sense of equity.(E) They are almost uniformly quarrelsome when drunk; but neither irritable nor phlegmatic when sober. They are very bigotted; but, I think, not more superstitious than other people of the same rank. They are restless and licentious; but destitute of a true spirit of liberty, except in some of the northern counties: rebellious; but, with the same exception, regardless about the nature of their government.

There are sufficient grounds for pronouncing them ungrateful. But their ingratitude certainly springs from a source specifically different from the ordinary sources of the ingratitude of others. In the exercise of their generosity they never look forward to a return on the parts of those who are benefited thereby; and when they experience favours, they habitually persuade themselves into a belief of similar disinterestedness on the parts of their benefactors. They are extremely improvident, precipitate, and regardless of consequences, whether immediate or remote. They are, generally speaking, versatile; and can easily accommodate themselves to any change in their condition. They manifest, for the most part, an astonishing degree of confidence, in many of those situations in which their neighbours, of the same class, would betray the utmost diffidence. Nothing can abash, confound, or overawe the greater part of them. They are prone to suppose themselves competent to the performance of many things, which others of the same rank, equally competent, would diffidently or modestly consider beyond the compass of their powers; and this supposition (philosophers will credit the fact) has generally the effect of giving unwonted energy to their abilities, and eventually ensuring success.

Upon the whole, the character of this numerous and important class of the Irish community, notwithstanding its many reproachable qualities, can by no means be considered as decidedly and radically bad. On the contrary, I am inclined to think, that those who will take the trouble to trace up its bad qualities to their proper sources, to consider the favourable changes of which they are susceptible, and to make a just appreciation of its good ones, will not hesitate to admit, that it is perfectly practicable, by patient culture, a prudent conjunction of coercion and conciliation, and an uniformly impartial administration of distributive justice, by infusing amongst them a spirit of rational liberty, teaching them to practise the virtues of freemen, instead of compelling them to practice the vices of slaves, promoting habits of industry amongst them, affording a safe scope for the exercise of their active qualities, and by involving their interests in the welfare of the empire; I say, that every reflecting man will readily admit the possibility of rendering them, by these means, as useful citizens and as valuable subjects as any upon the face of the earth.

The majority of the appropriate characteristics of the middle class of the Irish community, from which it seems almost needless to observe that many individuals have always been found exempt, have certainly been heretofore of an extremely alienating nature. Unbecoming pride, however, consummate effrontery, captiousness, ferocity, tyranny, sensuality, vulgar boisterous mirth, and inconsiderate prodigality pregnant with dishonesty, though not yet perfectly obliterated, can be no longer deemed the predominant qualities of its character. And, it is with infinite pleasure, I take this occasion to observe, that for several years past this class has been in a rapidly progressive state of moral amelioration; presenting, at this moment, vast numbers whose talents, learning, principles, unassuming and peaceable demeanour, render them valuable members of society and ornaments to their country. Duelling, once so remarkably prevalent in this class, has almost totally ceased. Drunkenness is no longer a common vice. Frugality has become more general than prodigality. Agriculture and commerce are now favourite pursuits. And politeness is every day more practised and more admired.

From this class, chiefly, there have issued multitudes of bold adventurers in every line, many of whom, it is well known, have rendered themselves conspicuous both in the military and literary annals of Europe; have acquired the greatest influence in the cabinets of foreign princes; and distinguished themselves in the diplomatick line: but the far greater part of whom, it must, with sorrow, be confessed, have disgraced and scandalized their country.

Before I quit this class (from which, by the bye, it seems not amiss to observe, that government may always easily draw a considerable number of the most strenuous supporters) I think it necessary to apprize the reader, that while I include in it all those minute subdivisions, which may be found between the class first spoken of and the highest class of the Irish community, commencing with the estated gentleman of two thousand pounds a year or thereabouts; I do so, with the exception of many persons of very moderate properties who have issued from the class above it, and, in consequence of early education and subsequent association, exhibit, for the most part, the characteristics of their parent class; and that I think it would be more consistent with precision to make a further exception of certain professions. I must likewise desire the reader to recollect, that as the extremities of each class are necessarily blended with each other, it is impossible to draw any thing like an accurate line of demarcation between them.

In the highest class of the Irish community, no qualities or acquisitions are more common than hospitality, gaiety, affability and liberality; politeness without pride; generosity without affectation; charity without ostentation; courage without boasting; assurance without effrontery; and learning without pedantry.(F) So highly, indeed, are pride, gravity, parsimony, ostentation and punctiliousness disrelished by this class of the Irish, and also by the Irish at large, that he whose character is tinctured with them, will always find Ireland, in point of society, a most ineligible place of residence. The chief faults of this class seem to be, an almost total want of publick

(E) The people of the greater part of the province of Ulster are not meant to be included in the whole of this censure.

(F) "Every unprejudiced traveller, says Mr. Young, who visits Ireland will be as much pleased with the cheerfulness as obliged by the hospitality of the inhabitants, and will find them a brave, polite, liberal, learned, and ingenious people. Tour Vol. ii. part 2, p. 114.

spirit and disinterestedness; a high degree of venality, supineness and partiality in the exercise of all public functions, especially those of the magistracy; and an unbecoming and imprudent propensity to intolerance on the score of religion, accompanied with a want of due veneration for the religion they profess: faults to which many are disposed to ascribe several of the bad qualities discoverable in the characters of the lowest class of the Irish.

Throughout all the classes of the Irish community, hospitality, urbanity, assurance and vivacity are predominant; courage and sagacity very common; and a high degree of intellectual vigour, by no means rare. That such a general character should be tarnished by religious animosity, injustice, political corruption, and political delinquency, cannot be sufficiently deplored.

VIATOR.

*** *We have thought it advisable to defer the extract, illustrating the progress of Jacobinism in France, to which we alluded in one of our late Numbers, till we shall be able to resume the subject with which it is more particularly connected.*

CRITICAL REVIEW.

MR. SAMUEL HAMILTON begs leave to inform the Public, that, notwithstanding the loss he has sustained by the tremendous fire, which destroyed the whole of his premises on Wednesday night the 2d instant, the CRITICAL REVIEW will continue to be published with its accustomed regularity on the first day of every succeeding month. He feels much pleasure in being able to inform his literary Correspondents, that almost all the manuscripts intended for the ensuing or future numbers have escaped the flames, from having fortunately been at the time of the fire in the editor's possession.

A continuance of that patronage, both of literary characters and of the public, which has enabled Mr. HAMILTON to present a monthly epitome of universal learning, equally, as he trusts, characterised by a dignified impartiality and an elaborate research, is requested by him. He is obliged to several learned gentlemen who have lately complimented him upon the unrivalled attention paid in the CRITICAL REVIEW to the literature of the Continent, and the solicitude manifested to obtain and diffuse an early acquaintance with every work of importance, in whatever country published. It has been, and shall continue to be, his object to present a national work, not unworthy of the nation in which it appears: and while he is determined that the loss he has sustained shall, in no respect, relax his own exertions, he relies on the well-known liberality of his countrymen, that it will rather augment than diminish the support he has hitherto received, and which he is now proud to acknowledge.

*** Communications are requested to be addressed to Mr. S. HAMILTON, at Messrs. G. and J. Robinson's, Paternoster-row.

February 15, 1803.

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Printed and Published by J. Cundee, Ivy-lane, Paternoster-Row, London.

NUMBER 8.] THURSDAY, FEBRUARY 24, 1803.

PHYSICS.

I. *On the Clupea Tyrannus and Oniscus Prægustator. By Benjamin Henry Latrobe.*(A)

IN the month of March 1797, Mr. Latrobe was confined by illness at the house of a friend near York river in Virginia. His inability to move farther than the river gave him leisure to examine and ascertain the following curious fact.

Among the fish which at that early season resort to the waters of York river, there arrives in considerable shoals a species of Clupea, not hitherto described, vulgarly called the *bay ale-wife*. It is as large as a herring, and is principally distinguished from that fish by a bay or red spot above the gill-fin. From March to May it is full-roed and fat, and at least as good a fish for the table as the herring.

At this season, there is found in the mouth of every one of these fish an insect, about two inches long, hanging with its back downwards, and holding itself firmly by its 14 legs to the palate. The fishermen call this insect the *louse*. It is with difficulty that it can be removed, and perhaps never without injury to the jaws of the fish. The fishermen consider this insect as essential to the life of the bay ale-wife, for on removing it, the fish, if thrown back into the water, is unable to swim, and soon dies. Mr. Latrobe made many attempts to preserve both the insect and the fish from injury, but before he could separate them, was always obliged, either to injure the one, or to destroy the other. Sometimes he succeeded in taking out the insect in a brisk and lively state: as soon as it was set at liberty it immediately scrambled nimbly back into the mouth of the fish and resumed its former situation. It was always disgustingly corpulent: whether it procures its post by force or by favour, it certainly has a *fat* place of it, and fares sumptuously every day.

Many circumstances essential to the history of this insect remain still to be ascertained. The fish in whose mouth it is found comes into the rivers of Virginia from the ocean about the same time with the *chad*, and continues to travel upwards, from the beginning of March to the middle of May. When caught, during its passage up the river, it is fat and full of roe. The fishermen and other observers affirm, that during that period every bay ale-wife has the insect in its mouth The chad begin to return from the fresh water about the end of May lean and thin; and continue descending during the remaining summer months. Whether the bay ale-wives return with the chad Mr. Latrobe could not ascertain; but it is certain that after June they are not thought worth catching. It is not improbable that the insect then leaves them: for an intelligent person, who had an excellent opportunity of knowing, informed Mr. Latrobe that he could not recollect ever to have seen it in the mouth of any bay ale-wives accidentally caught in the seine, in July and August.

Many of the insects, examined by Mr. Latrobe, had two or three leaches on their bodies, adhering so closely, that their removal cost them their heads. This extraordinary insect is a species of *Oniscus*, several of which are known to be troublesome to particular fishes. The oniscus ceti is known as the plague of whales, and many of the rest are mentioned by Linnæus and Gmelin as *pestes piscium*. Mr. Latrobe gives this insect, which he considers as a non-descript, the name of *Oniscus prægustator*, on the supposition that its business in the mouth of the Clupea is to taste the food before the fish ventures to eat it. From this idea he calls the fish (also a non-descript) *Clupea tyrannus*.(B)

(A) American Transactions, Vol. v. p. 77.

II. *On Animal Cotton. By M. Baudry des Lozieres*

Every inhabitant of the West Indies knows the greedy worm which devours their indigo and cassada plantations. Hitherto the planters have been anxious only to destroy this enemy of West Indian industry; but Mr. Baudry des Lozieres suggests a method of forcing it to contribute to their interest.

The cassada worm is produced from eggs, scattered by the mother, after she has undergone her metamorphosis into a whitish butterfly. The egg is hatched about the latter end of July. Its developement is quick; for in September the worm is changed into a butterfly. That month is the season of love among these little animals. They indulge their passion almost without intermission both night and day, even when feeding. This excess soon destroys them. For in the same month they die, after violent convulsions.

In its caterpillar state the cassada worm has some resemblance to the silk-worm, but differs from it in many particulars. It feeds on cassada leaves, and is very voracious, eating day and night without intermission. It nibbles also the leaves of the potatoe: but it soon returns again to the cassada leaf, which it greatly prefers. In the month of August it strips off its superb robe and appears of a fine sea-green colour. This change is the commencement of its tortures. For immediately a swarm of ichneumon flies assail and completely cover the unfortunate insect, who struggles with all his might, but in vain. These microscopic flies drive their stings into his body, and slip their eggs into the wounds. After this operation they disappear, leaving the worm in a drowsy and motionless state, out of which he awakes, in about an hour, to feed with his former voracity. His size after this increases every day, and his colour assumes a deeper hue.

The eggs deposited by the ichneumon flies may be detected in about a fortnight, by the help of a microscope, hatching in the body of the insect. The process

(B) American Transactions, Vol. v. p. 150.

is completed in them all, nearly at the same time; little worms issue out at every pore, and cover the insect so completely, that nothing can be seen but the top of his head. As soon as the worms are hatched, they exude a little gummy juice, without quitting the spot where they first appeared. This juice, from the contact of the air, soon becomes solid and slimy. At the same time they raise themselves on their lower extremity, shake their heads and one half of their bodies, and swing themselves in every direction. By this process every one of these little animals works himself an almost imperceptible cocoon, in the shape of an egg, in which he wraps himself up. These millions of cocoons, all close to each other, form a white robe in which the cassada worm appears elegantly drest. During all these operations he remains in a state of almost lethargic torpidity.

As soon as his covering is woven, and the little workmen who have made it have retired and hid themselves in their cells, the worm endeavours to rid himself of these barbarous guests, and of the robe which contains them, and at last, after a violent struggle, he succeeds. He now appears entirely flaccid and dull; still gnawing a few leaves, but not eating with his former voracity. Soon after, he passes into the crysalis state.

In about a week a cloud of little flies issue from the cocoons of which the shell of the cassada worm is composed. They are bold and lively, have four wings, antennæ long and vibrating, and a belly joined to the head by a very fine thread. They feed on small insects that appear to belong to the family of Acarus. These indications satisfied Mr. Baudry des Lozieres that the insects in question belong to the family of ichneumon.

The shell of cocoons which these little animals have formed is of a dazzling whiteness, and composed of fibres which possess the properties of *cotton*. It is exceedingly fine and pure, and may be used without any preparation as soon as the flies have left it. As rain speedily destroys the cassada worm, it might be put under shelter as soon as the ichneumon flies have deposited their eggs. This never fails to happen. Mr. Baudry never saw one cassada worm which was not covered with the robe of cocoons; and the crop of them is so abundant, that in two hours he could collect to the amount of two hundred pints of them, French measure.

Animal cotton is attended with none of the difficulties which occur in the preparation of vegetable cotton. It is more abundant, and, according to our author, in every respect preferable. Silk and vegetable cotton are known to irritate wounds; but Mr. Baudry employed animal cotton even as lint in an hospital, without the smallest inconvenience.—We hope that these curious remarks of Mr. Baudry des Lozieres will excite the attention of our West India planters; and that, if the animal cotton possesses all the advantages here alleged, the cassada worm, like the silkworm, will become an object of cultivation.

III. *On Stony Bodies supposed to fall from the Atmosphere.*

The attention of philosophers has been for some time drawn to certain stony bodies, the origin of which is unknown, but which have been affirmed by different persons to have fallen from the atmosphere. Dr. Chladni of Wittenburg, well known for his improvements in acoustics, published a dissertation on *fire-balls* some years ago; in which he demonstrates that these luminous meteors are frequently at least composed of dense and heavy materials; that they explode and burst with great violence, and that at the same time a number of stony bodies fall from them to the earth. Several of the instances which he gives are too well authenticated to be refused credit; and they explain the origin of the popular idea respecting thunder-bolts, which have prevailed in all ages. The doctor's hypothesis, that these fire-balls were small masses of matter, moving in free space, attracted by the earth and kindled by the rapidity of their motion through the atmosphere, will not be so easily admitted.

Last year Mr. Howard read a paper to the Royal Society on the same subject, which was published in the Philosophical Transactions for 1802. He produced a number of additional instances well authenticated of the fall of stones from the atmosphere: particularly one in Yorkshire in 1795, and at Benares in 1798.

He observed that all the stones which he had an opportunity of seeing resembled each other very exactly in their character; and on subjecting them to a chemical analysis they were all found composed of nearly the same constituent parts; namely, silica, magnesia, iron, nickel, and sulphur. This alone, if we consider the vast distance between the places where these stones have been found, affords a very strong proof of their common origin.

Since the publication of Mr. Howard's paper, Mr. Vauquelin has examined the same stony bodies, and the result of his analysis coincides exactly with that of Mr. Howard. He has found the same coincidence in some other stones which fell lately in different parts of France. These experiments of Howard and Vauquelin warrant us to conclude that all the stony bodies which fall from the atmosphere are composed of the same ingredients.

To account for the origin of these bodies is a difficult task; perhaps indeed, in the present state of our knowledge, an impossible one. Dr. Chladni's hypothesis is surely inconsistent with those laws which we know to regulate the great bodies of the universe. Mr. de la Place has lately proposed another, which we shall give our readers; because the sagacity and merited celebrity of this profound philosopher entitle all his opinions to peculiar attention. The following is his hypothesis.

It is easy to demonstrate that a body projected from the moon requires only a velocity five times as great as that of a 24 pound ball, shot from a cannon by means of a charge of powder equal to half its weight, to be able to arrive at such a distance from it, as to be no more attracted by the moon than by the earth. If it passes that point, it will come within the earth's attracting distance, and of course, instead of returning to the moon, will fall upon the surface of the earth. The powerful volcanoes which seem to exist upon the moon's surface render such a projection not unlikely. Besides, it must often happen that the masses are projected in

such direction, that, in consequence of the combined motions of the earth and moon, the smallest possible velocity shall be necessary to enable the body projected to get [illegible] the sphere of the earth's action. The atmosphere of the moon (if it has any) is undoubtedly so rare as only to interpose a very feeble resistance to the motion of bodies through it. The very contrary is the case with the atmosphere of the earth. It very soon reduces to a tenth part the velocity of a cannon-bullet. Such indeed is the resistance which it opposes to rapid motions, that before a body projected from Vesuvius could reach France, it must have been projected with a velocity much more considerable than what would be necessary to carry a body, projected from the moon, to the limit of the sphere of the earth's activity. It is not possible therefore to believe that the stony bodies which fall from the atmosphere, at a distance from volcanoes, can have been projected from volcanoes. Besides, their analysis shews them to be different from all known volcanic productions. It is more likely that they may have been projected from the moon.

Such is the hypothesis of La Place. We suppose that few of our readers will be disposed to adopt it. Were it true, we are afraid it would destroy that permanency of the solar system which La Place himself had succeeded in completely demonstrating. It is true, indeed, that chemists cannot account for the production of these stony bodies in the atmosphere. But the time may come when we shall be better acquainted with the elements of bodies, and be able to see a connection between meteorology and geology, which must evidently be supposed to exist, in order to solve the phænomena of either science.

IV. *On the Germination of Seeds.*

It is well known that the seeds of plants consist of three parts, namely, the radicle, the plumula, and the cotyledons; the first of which is destined to become the root, and the second the stem of the future plant; while the cotyledons, which vary in number, contain the nourishment necessary for the preparation of the root, till it becomes fit to absorb nourishment from the soil. As soon as a seed is put into a proper situation for germination, the cotyledons begin to absorb water and oxygen, to emit carbonic acid gas; the food which they contain is new modelled, and sent to the radicle, which gradually increases in size, and is converted into a root. The root, thus formed, absorbs nourishment, and sends it to the cotyledons which now assume the form of seminal leaves. By them it is digested, and sent towards the plumula, which gradually becomes a stem, and puts forth leaves of its own. The seminal leaves now decay, and may be removed without injury. The experiments of Bonnet and Sennebier have shown, that if the seed be deprived at first of its cotyledons it never germinates at all, and that if they be removed before the plumula has put forth leaves, the plant vegetates indeed, but remains for ever a mere dwarf. Vastel has lately read an account of a number of experiments on this subject to the National Institute of France. As the result of these experiments differs exceedingly from what had been obtained by preceding philosophers, they claim the attention of physiologists, in order to ascertain on what that difference depends. Messrs. Thouin, Desfontaine, and Labillardiere, the commissioners appointed by the Institute to examine these experiments, have repeated most of them, and thus enabled us to judge how far Vastel's experiments may be depended on. The substance of Vastel's paper may be comprehended under the following heads.

1. He found that kidney-beans, deprived of one of their cotyledons, throve almost as well as those which retained both of them. This experiment the commissioners found to succeed in the common bean and kidney bean; but it failed in lupines. They found also that beans deprived of one cotyledon, and having the plumula and radicle divided, sprouted and grew to the height of 28½ inches, exhibiting at the bottom a cicatrice of 7 inches in length. This experiment did not succeed with maize.

2. Pease placed on moist moss, and deprived of their cotyledons, as soon as the plumula began to blow, continued to grow. Some kidney-beans, deprived at first of their cotyledons, germinated also, and continued to vegetate many months. The first of these experiments was made long ago by Bonnet; the second was repeated by the commissioners; but scarcely with success. The embryos indeed grew bigger, but they soon perished.

3. Kidney-beans, whose radicles had been previously cut (*off*, we presume) grew and throve wonderfully. The experiment tried by the commissioners on the dolichos lablab did not succeed.

4. He cut off the radicle of kidney-beans in proportion to its growth. Notwithstanding this the plumula shot out, and attained the height of 19 inches. This experiment succeeded with the commissioners.

5. Cotyledons of kidney-beans, to which radicles adhered, though deprived of their plumula, grew and produced stalks.—This experiment is to us inconceivable.

6. The radicles of kidney-beans, deprived of plumula and cotyledon, germinated rapidly in wet moss. This experiment failed with the commissioners.

7. Plumulas deprived of radicle and cotyledon, and placed on wet moss, increased in bulk, and their small leaves were somewhat blown: but they soon perished. This experiment also failed with the commissioners.

8. Cotyledons, deprived both of radicle and plumula, sometimes produced young plants and sometimes only roots. This experiment, as might have been expected, failed in the hands of the commissioners.

ROYAL INSTITUTION.

The lectures delivered at this Institution are prosecuted in a manner highly satisfactory to the numerous audiences, of both sexes, who attend them; and we observe with sincere pleasure, that a taste for scientific pursuits is rapidly diffusing itself among that class of society, whose chief distinction has hitherto consisted in title or fortune. The two professors, Dr. Young, and Mr. Davy, deliver six lectures in the week, three each; the former on Natural and Experimental Philosophy, the latter on Chemistry. Galvanism was the

subject of one of Mr. Davy's lectures last week. This branch of natural knowledge, so closely connected with chemical science, has long occupied the attention of this ingenious professor, who has enriched it with several new facts and discoveries. Among other curious phenomena exhibited on this occasion, we may mention the inflammation of combustible bodies and metals. A few years ago it would not have been believed that copper, silver, and gold could be set on fire by means of the galvanic spark, with as much facility as one taper is lighted by another. For this purpose, these and other malleable metals should be presented in the state of thin leaves. The flame with which they burn is much more vivid than that of a candle.

Teyler's second Society, at Haerlem, has proposed the following prize-question for the year 1803.

"Does it appear from the history of natural science, that the application of metaphysical theorems has been any ways conducive to the perfection of that science? or does it show, on the contrary, that no progress has been made in natural science, but by means of just inferences drawn from observations and experiments, and of scientific calculations and demonstrations founded thereon? What limits does the history of natural science give to those who are desirous of being instrumental in promoting that science, in the most useful and effectual manner?"

The prize is a gold medal, 400 guilders (about 36*l.* sterling) in value, to be adjudged to him who shall in the most satisfactory manner answer that question before the 1st of April 1804, in Dutch, Latin, French, English or German.

LITERATURE.

REVIEW OF BOOKS.

Campbell's Travels from Edinburgh. 2 Vols. 4to.

Though Scotland long continued an unknown and neglected country, it has lately, by the good offices of Mr. Pennant (almost the first who shewed the Scots themselves that there was something in their own country worthy of notice) and of his numerous followers of England, Scotland, and other countries, obtained a full share of the public attention, with respect to the appearance of the country, the character of the people, the state of agriculture, manufactures, &c. There is even a danger of the books of travels in Scotland becoming too numerous, and of our being oppressed with repeated descriptions of the same towns, the same mountains, rivers, water-falls, and lakes: and truly, those travellers, who add nothing of consequence to our stock of knowledge, ought certainly to reserve their remarks and descriptions for the circle of their own friends. But Mr. C. has made considerable deviations from the beaten track, and struck into a region, which, though in the heart of Scotland, and at no great distance from the capital, is, we believe, almost unknown, even in Scotland. His work is not an account of any one journey, but a progressive series of descriptions of Edinburgh, Linlithgow, Falkirk, Bannockburn, Stirling, Callander, the chain of lochs in Montieth (the *terra incognita* of Scotland) Killin, Loch Tay, Taymouth, Strath Tay, Blair-Athol, Struan, Dunkeld, Strathmore, Birnamwood, Perth, Dundee, St. Andrews, and thence along the coast of Fife up to Queen's-ferry, and back to Edinburgh, together with every place worthy of notice adjacent to any of these. In his account he acts rather the part of a guide to future travellers, pointing out, from the experience of several journies, what ever is worthy of their attention, than of an actual traveller; a plan which he has adopted in order to avoid 'that kind of disgust which ceaseless egotism usually excites;' and, for the same reason, we have no incidents which occurred to himself in any of his excursions. Our author's modesty is very laudable: but notwithstanding, there is something interesting in tracing a real route, and in being introduced to real personages. Neither does the egotism, if untainted with arrogance, at all disgust us. We conceive a friendship for our real traveller; shall we say fellow-traveller? We feel for his hardships; and we enjoy with him the comforts, and the grateful feelings, produced by his kind reception in the hospitable castle of the chief of a sequestered island, or in the commodious mansion of a proprietor of a more fertile and cultivated part of the country.

Portions of history are locally introduced, which will be particularly interesting to those who are connected with, or have travelled over, the scenes of battles or other events. But, without pretending to any critical knowledge of Scottish history, we may venture to say, that Mr. C. might as well have let the story of Grime surprising the Roman garrison at the wall (v. i. p. 29.) remain in the hands of the fabulists. He says,

P. 70.—'Historians, from a romantic spirit of mistaken 'gallantry, have attempted to throw the conduct of Queen 'Mary into new lights, arrayed in the spotless robe of in-'nocence.'

And a little farther,

'Darnley was murdered; and Bothwell in a short time 'after filled his place in the too susceptible bosom of Mary. 'These circumstances were but too fatally calculated to 'bring her into disgrace and contempt with her subjects.'

Has Mr. C. read none of the vindications of Mary, wherein her innocence of the murder, which was indeed 'too fatally *calculated*,' and planned with infernal and unrelenting malice, on purpose to disgrace and destroy her, and also many of the deep intrigues of her abandoned persecutors, are established upon unquestionable authority, not by 'new lights,' but by dispelling the black clouds wherewith wicked agents and prostitute writers had overwhelmed the truth?—In p. 287, Mr. C. calls Elizabeth Mure the *favourite*, and, '*as some say*,' the first wife of Robert II.—Here again Mr. C. shuts his eyes against the blaze of demonstration thrown upon the *first* marriage of Robert II. which is sufficiently known to every person of moderate reading in British history. Does he wish to bastardize all the sovereigns of Scotland, Great Britain, and most of the kingdoms of Europe, descended of the issue of that marriage?

We must acknowledge ourselves more interested in the biographical anecdotes, frequently introduced, of private characters, such as Doctor Cameron, Rob Roy, Jerome Stone, Catherine Bruce, and others. His

histories of the universities of Scotland, of the Scottish episcopal church, the Scottish theatre, the painters and other [illegible] of Scotland, though not altogether new, form a valuable portion of the work. His descriptions of the various scenery, we doubt not, will be found correct by future tourists, who shall avail themselves of his instructions, provided they carry with them the eyes of amateurs of the wild and sublime in landscape.

The plates are generally very beautiful, and, we presume, they are true representations of the places. We must acknowledge, we are not sufficient connoisseurs to relish a greenish or reddish tinge in the sky as a beauty: and we submit it, with due deference to the artists, whether etched strokes or lines might not be introduced along with aquatinta in those parts of the plate intended to represent cloudless sky and water, which are sometimes not sufficiently distinct in the aquatinta.

Journal of the campaign in Egypt, *including descriptions of that country, and of* Gibraltar, Minorca, Malta, Marmorice, *and* Macri; *by* Thomas Walsh, *Captain in the 93d regiment.* 4to.

It is with pleasure we see many of the gentlemen of the army aspiring, like Xenophon and Cæsar, to literary as well as military fame; because narratives written by real actors in the events related (who cannot, in the present enlightened state of the world, be suspected of concealing, disguising, or exaggerating the truth) must certainly contain the most valuable and authentic documents of military history for the information of the present and succeeding ages.

None of the operations of the late war, we believe, excited so much of the public attention as the expedition to Egypt. The long established celebrity of that country, its former commercial importance, and the apprehension of the restoration of that importance by the French, who hoped to make Marseilles, what the commercial part of Italy was in the middle ages, the dispenser of the rich produce and manufactures of India to the rest of Europe, to ruin our East-India trade, and to undermine the foundations of our commercial and naval pre-eminence, all conspired to render the event of that expedition an object of interesting and anxious expectation. We are therefore not surprised at seeing several accounts of so important an event offered to the public: and we venture to predict a favourable reception to all of them (if the number does not become excessive) that are written with fidelity and candour.

Captain Walsh begins his journal at Gibraltar, and details the progress of the British army to Minorca, Malta, Marmorice, and Egypt; and he gives a particular account of every action of the British and Turkish armies in that country till the surrender of Alexandria, which completed the conquest of Egypt, from his own knowledge, assisted by the information of officers who were engaged in those actions wherein he was not present. He also gives an account of the distressing march of the detachment from India across the desert. Not aspiring to the praise of an historian, he has preferred the journal form for his narrative, and leaves the facts to speak for themselves, without discussing the propriety of measures, reasoning on the consequences of incidents, or bestowing any praise where so much is unquestionably due. Of places often visited, and on which the pens of various travellers have been copiously employed, he has said but little: but as different people seldom see things with the same eyes, he trusts, that some of his few remarks may possibly be new.

Besides the narrative of military operations, our author gives brief descriptions of every place he arrived at, and sometimes also episodical sketches of their history.

'The confinement at Gibraltar, he says, (p. 8.) would be intolerable, were it not alleviated by a well chosen library, which is provided and supported by the subscriptions of the officers.'

After giving a description of Minorca, he proceeds to Malta,

'The value of which is far from being properly appreciated in England, its safe and commodious harbours, its immense* population, and, I may venture to say, its impregnable fortifications, were by no means estimated, previous to the event which placed them in our hands, according to the pre-eminence they hold, if not in the world, at least in the Mediterranean. The population of the island, before the overthrow of the order in 1798, was computed at one hundred thousand inhabitants; a number almost incredible for so small a surface.'

Our author might have said *utterly incredible*, as the island, according to his own map, does not contain much above 100 square miles, and no one will suppose a population of 1000 persons to a mile, especially of such soil as Malta consists of: for in order 'to prepare its artificial soil, for so it may with propriety be called, the rock is broken into pieces, the larger and harder of which are used for constructing the fences round the fields. The smaller and softer are again beaten and reduced to powder, to which a very scanty portion of earth, scraped from the surface of the rock, is added. This mixture is susceptible of a surprising degree of cultivation and fertility. It produces abundance of corn and vegetables, great quantities of white and brown cotton, &c. thus amply repaying the toil and labour of its industrious fabricators. If the Dutch, by their industry, have wrested valuable lands from the dominion of the sea, the Maltese, equally ingenious, have, by their unremitting efforts, changed a useless and barren rock into a fertile and productive island.'

The change from barrenness to fertility in Malta, is at least as old as the days of Ovid:

> Fertilis est Melite, sterili vicina Casyræ,
> Insula, quam Libyci verberat unda freti.
>
> Fast. l. iii. v. 567.

But neither then, nor ever since, could it support 100,000 people.

Captain W. says, (p. 36.) 'The common language of Malta is the Lingua Franca, a mixture of Italian and Arabic.'—This is all he says of it; and it is surely too superficial a notice of a subject of so much curious and interesting research (rather too conjectural indeed) among the learned, and which still requires the personal and deliberate examination of a second Bochart.

Along with the description of Malta, he gives brief histories of the siege of it in 1565 by an army of

* The too frequent use, or abuse, of this word is perhaps the only thing reprehensible in our author's language. Scarcely any thing is really immense.

40,000 Turks, of whom only 10,000 survived, when they gave up the attempt; and of the knights of Malta. (pp. 26, 37.)

Our author and two other officers made an excursion from Marmorice bay to Macri, the ancient Telmessus, where their antiquarian curiosity was gratified with the sight of an ancient amphitheatre, monuments hewn out of the solid marble rock, &c. (p. 56 *et seq.*)

Soon after the army landed in Egypt, they were convinced, by a smart shower, that it sometimes rains in that country: but it is believed, that those showers fall only near the coast. (pp. 80, 255.)

The lake of Aboukir was formed by an irruption of the sea so late as 1778, and the neighbouring lake Edko, still later in 1800. (pp. 61, 232). In that country land is rendered a precarious property by the capricious invasions of the sea and the river, and all other property is rendered dangerous to the possessor by the extortions of the government.

Every British heart will beat in unison with the author's, when reading the death and character of General Abercromby.

'During the seven days which elapsed from the period of his being wounded till his death, the anguish and torture he endured must have been extreme. Yet not a groan, not a complaint, escaped his lips; and he continued to the last a bright example of patience and fortitude. He thought and talked of nothing else to all around him, but of the bravery and heroic conduct of the army, which he said he could not sufficiently admire.

A man, who has served his country in every quarter of the globe; who, as a commander, devotes to his troops an attention almost parental; as a soldier, shares in all their hardships, and all their dangers; who, at an age when he might retire from the field covered with glory, comes forth at the call of his country, a veteran in experience, youthful in ardour; whose life is a public blessing, his death a universal misfortune; is beyond the hacknied praise of panegyric. Such was Sir Ralph Abercromby. Dead to his country, his name will ever live in her recollection. Through his exertions, seconded by the co-operation of those he commanded, a nation, long oppressed by a sanguinary war, caught the first glimpse of an honourable *peace*; and while a grateful people bent over the grave of their departed hero, they beheld the yet timid olive sheltering itself in the laurels which encircled his tomb.' (p. 109.)

Captain W. says (p. 144) that one of the most prominent traits of the Grand Vizier's character is an inclination to attribute every circumstance to the course of fate, which, whether it conduct to good or evil, he thinks irresistible, and any effort to stem its torrent he considers as impotent, if not impious.—With submission to our author, we believe he may find, that a belief in predestination is one of the principal tenets of the Mahometan religion, and consequently by no means a characteristic peculiarity of the Vizier.

After relating the sieges and surrenders of Cairo and Alexandria, our author gives a description of the latter town, with its antiquities, fortifications, &c.

'Alexandria, once the capital of the commercial world, 'is now converted into a desolate heap of ruins.' 'The 'new town is little better than a common Turkish village, 'the only decent houses being those of the European con-'suls.' 'The remains of beautiful marble and granite pil-'lars, mixed and confounded with the miserable ruins of 'Arab dwellings, present themselves at every step, and 'force upon the mind a melancholy comparison of the an-'cient splendour of the emporium of the world with its 'present degradation.' (p. 223.)

The famous column, known by the name of Pompey's pillar, has been accurately measured by the French *savans*, who (following the contrivance ascribed to some English seamen) got up by means of a kite to the top of it, on which they set up the cap of liberty. But they seem to have known nothing of the Greek inscription, actually remaining on the pedestal, which the indefatigable perseverance of Captain Dundas and Lieutenant Desude has at last made out, though wanting some letters in three of the four lines whereof it consists. It is dedicated to the emperor Diocletian by a prefect of Egypt, whose name begins with ΠΟ (or ΡΟ) the five or six remaining letters (reckoning their number by the space) being unfortunately obliterated. Mr. Hayter at Naples supposes the name *Pontius*. But may we not ask, as the column has been called by the name of *Pompey*, and as the known age of the inscription proves that the famous Roman commander of that name could have no connection with it, why might not *Pompey*, rather than *Pontius*, be the name of the prefect who dedicated it to the reigning emperor?

Our author accompanied Generals Coote and Ludlow on an excursion, mostly by water, to Rosetta, Cairo, and the pyramids. His description of Cairo, and indeed of Egypt in general, is not more flattering than that of Sir Robert Wilson, some specimens of which we have already laid before our readers.

'Only that part of the country which the Nile overflows is inhabited, as is clearly perceptible by the narrow and contracted space of cultivation on each border, and by the numerous villages built only along its banks.' (p. 252.) 'The inhabitants are estimated at about three millions.' (p. 261.)

Surely the writers of all ages have conspired to *puff* the country and people of Egypt. Ancient authors tell us, that it contained *twenty thousand cities* in the reign of Amasis: and a late author (Wallace on the Numbers of Mankind, p. 42) has reckoned the population in the remoter age of Sesostris at thirty-four millions!† Agrippa, in his speech to the Jews, (Joseph. Bell. Jud. l. ii. c. 16) is more moderate: for, though his argument led him to amplify the population of Egypt, he states it, exclusive of Alexandria, at only seven millions and a half. Mr. Maillet, a French consul, (we believe, in the early part of the eighteenth century) calculated the people of Egypt at only four millions, which, we suppose, was nearest to the truth, though still beyond it.

The Journal is followed by an ample appendix (145 pages) containing general orders, official letters, returns, &c.

Captain Walsh's narrative is simple and perspicuous. We presume, that it is perfectly authentic, and that

† If the data upon which Wallace's calculation is founded were solid, the population ought to have been above 100 millions; for he has supposed that the 1,700 companions of Sesostris, who attended him on his expedition, and were born on the same day with himself, were the whole of his foster-brothers; whereas it is perfectly certain, that not a third part of them could then be alive; and it is as certain, that the number of 1,700 is most enormously exaggerated, if there be indeed any foundation at all for the story, which is unknown to Herodotus, the father of what little we know of Egyptian history, who candidly acknowledges, that what he relates previous to the reign of Psammitichus is upon very doubtful authority.

it must be exceedingly interesting to military men, who are more masters of the subject than we can pretend to be.

The embellishments consist of a great number of coloured maps, plans, and positions of the armies; views of places, costume of the various nations, antiquities, &c. all from drawings made by the author himself, when perfectly at leisure, and with the utmost attention to correctness. They are also neatly engraved (all by Neele), and those representing human figures are coloured. It is a pity that the plates sometimes disagree with the narrative;‡ and we also perceive, that some things appear in them, of which there is no mention in the work.

The Poetical Works of the late Thomas Warton, B.D. *with some account of his Life, and Notes Critical and Explanatory, by* Richard Mant, M. A. 2 *vols.* 8vo.

The poetical character of the late Mr. Warton has been so long firmly established, that the present edition rather leads us to analyse the merits of the commentator, than the poet; though in observing on the critical remarks, they must both fall occasionally under our consideration. • •

Perhaps the most interesting part of the present edition is the account of the life and writings of the author prefixed to it, as an introduction. To the accuracy of this account, and the justness of the amiable character given of the subject of it, the writer of this article is enabled to give his testimony, from having lived in habits of friendship with Mr. Warton, and his brother.

The life of a man chiefly occupied in literary pursuits, and whose time was divided between his residence at Oxford, and temporary visits to his brother at Winslade and Winchester, does not open a large field to the biographer. The unaffected simplicity of his manners, his reserve in mixed company, obviously arising from a natural shyness unmixed with the least tincture of pride, (for which shyness a directly opposite principle is often mistaken,) his love occasionally for society of an inferior order, and his strong attachment to shews of all kinds, but especially of military exercise, form the most striking part of his domestic character, and these are drawn with a faithful and candid pen by Mr. Mant. As the most trifling peculiarity in such a man is worth recording, we will mention his frequent use of the word *sir* in his conversation with his most intimate acquaintance; and, as an example of this, we give the following address of his while in London many years ago, to a friend, who communicated it verbatim to the writer, and which also exemplifies another of his peculiarities already mentioned. "A glorious day, "sir, a glorious day, sir. Six men to be hanged;— "Review of the guards, sir, in Hyde Park;—and "Garrick in Macbeth at night, sir."

The critical observations on the poems have much merit; but the history of English poetry is too prominent a feature. It is as a poet, and not as an historian, that Warton will be esteemed by posterity. The comparison between Gray and Warton is well executed: and the concluding remark, that if Gray's works were more perfect, Warton's possessed more variety, is strictly just. But when Mr. Mant says, "The Lyre" (rather an affected designation of what we call, not very accurately, Lyric Poetry) "is the only memorial of the mind of Gray, exquisite indeed; but still the only one;" we are tempted to ask, how it should happen that he never heard of his elegy, more universally celebrated, perhaps, than any other poem in the English language? Mr. Mant seems to hold Pope and his versification in contempt, an opinion which, in the eye of the judicious, will be more injurious to the taste of the critic than the fame of the poet.

The notes on the poems are chiefly occupied in shewing the use Warton has made of the language of his predecessors, and particularly of Milton. To some it is possible this may seem an invidious employment; but surely, if the thoughts and sentiments are original, there is more merit in adorning them with the richest ornaments of language collected by genius, than in tricking them out in a tinsel style whose only merit is its novelty. While we give therefore our approbation to this part of the editor's labour, we must also notice the proof it affords of his accurate knowledge of our earlier poets, by which he is so well qualified to perform the task he has undertaken.

There is however one passage in the notes which must not pass without observation. On the line

'While cunning bards at ancient banquets sung,'

the critic says, "*Sung* used for the preterite is a solecism which not even its frequency can excuse." Now we are told by one of the best critics of antiquity, that custom is authority in such cases; and we think the authority of such a poet as Milton, and such a lexicographer as Johnson, rather better than that of those affected sciolists who teach young ladies, and those gentlemen, whose education has been neglected, to write and speak English grammatically.

In regard to Warton's poetry, he seems most happy in rural description; and in this, we think, contrary to the editor, that the Ode on the first of April stands foremost, though it is not obvious why an Ode on the first of April should begin

"With dalliance rude young zephyr woos
"Coy May"———

The verses to Sir J. Reynolds seem to want an additional couplet or two at the conclusion, owing to the want of a conjunction before the last couplet.

The principal singularity in Warton's rhymed heroic verse is a fondness for alliteration; but in this he is certainly countenanced by the example of the most perfect versification in any language, that of Virgil.

The Latin compositions are elegant and classical. Among these Mons Catherinæ, which has received much alteration from the author since its publication, is the first in merit. It is evidently an imitation of Gray's Ode on Eton College; but we do not look for originality in the Latin productions of an English poet; as the excellence of such compositions consists in being nearly a canto from the Roman classics.

‡ For example, plate 37, six sloops of war; in p. 209, seven.—Plate 30, Cleopatra's needle N.N.W. of Pharos, instead of south by east, as in p. 225.

On the whole, we may impartially say of this edition, that its faults are very few, and its merits very numerous.

SONNET

ON THE DEATH OF MR. WARTON.

Sent to the Rev. Dr. Warton *by a Friend.*

Say, shall the muse o'er the fall'n hero's bier
Th' eternal monument of glory raise,
Swell the loud Pæan of harmonious praise,
And high ambition's banner'd trophies rear,
While silent flows the tributary tear
Which to her fav'rite son she sorrowing pays,
Unstrung her useless lyre, and mute her lays?—
But, hark! a strain divine now strikes mine ear:
The sacred bard his independent fame
Shall from his own immortal verse receive!
Soon dies the warrior's and the statesman's name,
His aid if no recording poet give;
But wreaths of endless bloom shall Warton claim,
While wit, while learning, and while fancy live!

Poems on Various Subjects by Nath. Bloomfield, 12mo.

That one cottage should have produced two persons of such strong original genius as Nathaniel and Robert Bloomfield, is as extraordinary a circumstance as any which has been recorded in the annals of literature. Self-taught only, they have been able to remark accurately, and describe clearly, the various objects both of the natural and the moral world. In justness of conception and vigour of expression the brothers are nearly equal, but in many of those requisites which peculiarly distinguish the poetical character, Robert is evidently superior.

These Poems, like those of Robert Bloomfield, owe their public appearance to the patronage of Mr. Capel Lofft, who has prefaced them with some account of the author, and a criticism on the poems themselves, from which his readers may possibly in many instances dissent. That the "Essay on War," is a Poem of extraordinary vigour and originality will be readily granted; but if the versification of it possesses any claim to "great mastery in the mechanism or great powers of numbers," we must surely all have strangely misled ourselves in so long admiring the blank verse of Shakspeare, of Milton and of Cowper.

Surely the critical friends of Mr. Bloomfield might have objected to such lines as these:

"Strong Nature's bent, continual increase"——
And
"Alas! progressive increase cannot last.

Here, besides the necessity of giving a very forced accentuation to *continual*, to produce even the semblance of a verse, the word *increase* must have a different accent in the two verses, divided from each other by only two lines.

The description of the effects of gunpowder in modern warfare, is in every respect admirable, except one very weak line, which

like a mildew'd ear,
Blasteth its wholesome brethren:
"Hath taught the birds to tremble at the sound."

The other poems, *Honington-Green*, *the Culprit*, and *Love's Triumph*, deserve all the commendation given them by Mr. Lofft, except as to the versification, of which he says, "that they are strongly accentuated, and if read with close attention to accent and emphasis, the Rythm* is musical and energetic, when to a careless reader it may appear harsh and unmusable." The substance of this seems to be, that the accents are so strong that they cannot be perceived unless the reader takes great pains to mark them by his voice: a proposition which we do not understand, any more than we can assent to its being any merit in a verse not to have its cadence immediately apparent to the careless reader. If this be a merit, it is a merit oftener found in the loose hexameters of Horace than in the correct and harmonious lines of Virgil.

The republic of letters owes great obligation to Mr. Lofft for his introduction and patronage of two men of such natural and original genius; and we hope the assistance of a liberal public will enable them to devote more of their time to the cultivation of those talents which they so eminently possess. But there is one truth which cannot be too much impressed on the mind of the critics and writers of the present day, that in works of science and experiment every innovation is improvement, because it adds to the mass of information without diminishing the old stock. But this is not the case with polite literature and morality; in these, innovation always implies change rather than addition, and consequently, if not obviously tending to improvement, may be dangerous in works of taste and fatal in opinions of morality. This may be exemplified in the preface to the work before us. Mr. Lofft seems to be doubtful of good arising from the Vaccine Inoculation, and sanguine as to the future amelioration of mankind by the new philosophy. We think, with the Poet himself, that much good may be expected from the one, and much evil dreaded from the other; nor must we look for that perfection in mankind from the pride of philosophy which has not been effected by the pure and humble doctrines of christianity. On the first subject the poet has addressed a poem of exquisite feeling to Dr. Jenner, and on the other he speaks no less feelingly in the *Culprit*.

* *i. e. Cadence*, not *rhyme*.

DRAMATIC CRITICISM.

We are not of that fastidious school of criticism, which, by adhering closely to the rules of the French drama, erroneously supposed to be those of the Greek drama, and Aristotle, had nearly drawn all interest from our tragic scene during a very considerable part of the last century. We can see no reason why our drama should not unite all the modes of pleasing which rendered the Athenian theatre such a fascinating object to that acute and polished people.

Why should not our stage like theirs, exhibit at the same time interesting and pathetic incident, adorned with the best poetry, and occasionally varied with scenes of humour, many striking instances of which occur in Sophocles and Euripides;* and these heightened by the most splendid decoration of dress and scenery, and accompanied by lyric poetry and music. If the

* See Twining and Pye's Aristotle.

size of our theatres (especially of one of them) renders the minute touches of the actor less observable, the manager ought to avail himself of all the advantages that very circumstance affords him. That it has been done with striking effect appears from the popularity of many indifferent pieces, and we wish to see one of the best plays of our immortal poet, such as Macbeth, or King Lear, brought forward with all this liberal decoration.

But while we have no objection to the advantage that may be gained by the union of music and poetry, we have a very strong one to their being so blended, that the same character should be both actor and singer, and in the midst of a pathetic scene, or at the conclusion of an impassioned soliloquy, he should burst out into a song. This has been long tolerated in our comic operas; but we believe the Hero of the North is the first serious drama that has adopted it, where the dialogue has not been in recitation. The rule laid down by Aristotle in his celebrated definition of tragedy, is here, we think, not only from authority but from reason, decisive. Music as well as poetry was an essential part of Greek tragedy, which he says "effects its end by language made pleasant and affect-"ing, by distinct modes in different parts," which he afterwards explains by saying, "he means, by distinct "modes in different parts, that some parts attain their "end by verse only, and others by the aid of music."

This natural impropriety is greatly increased by the modern custom of encoring a favourite song, though perhaps it is to be immediately followed by some striking incident, or, to use the words of Hamlet, "though in the mean time some necessary question "of the play is then to be considered."

On Saturday, a historical musical Drama, called the Hero of the North, was performed for the first time at Drury-lane theatre; the production, we are informed, of Mr. Dimond, author of a volume of Sonnets, &c.—The northern hero is Gustavus Vasa. The scene is laid among the mountains of Dalecarlia, and the play opens just as Gustavus has lost a decisive battle against the Danes, by which his subjects are reduced to slavery, and he is obliged to conceal himself among the mines. Here also are concealed Casimir Rubenski the former guardian, and Frederica the mistress of Gustavus. Gunilda his sister, the heroine of the under-plot, having fled from a convent, is seized together with her lover Casimir, and confined in the castle of the governor Carlowitz.—The unexpected meeting of Gustavus and Rubenski, and their incitement of the miners to rise against the Danish Governor, the success of their enterprize, and the final triumph of Gustavus, form the principal incidents of the piece. The stratagem by which the Governor's castle is forced is certainly far from heroic. Gunilda is put in a situation much like one in Braganza, but her deliverance, by the generosity of Casimir, is much more probable, and infinitely more affecting than the other. The language is flowing and correct, but rather too figurative for the drama, and some of the speeches are too long. The interest of the first two acts is wonderfully deficient, considering how much must naturally arise from the fable, but the catastrophe is very affecting.

From the representation of such a piece, with all the advantage of liberal and appropriate decoration, it is difficult to augur its future success on the stage, and still more so in the closet; but we are rather inclined to think, that the first and second acts will read better than they acted, and that the third will be just the reverse. The beautiful simile of the winter thorn was not suited to the dialogue of the drama, and was particularly misplaced by being given to the old gardener. It would have been an excellent subject for one of the airs. The author has borrowed too much from Brookes's tragedy, "Gustavus Vasa," to be entitled to the claim of originality. The overture excepted, there was little above mediocrity in the music, which was principally a selection.

FOREIGN LITERATURE.

On the State of Literature in Sweden.

The observation, with which we introduced our rapid survey of the present state of literature in Russia, "that the northern parts of Europe, in a literary point of view, are but little known to us," has lately been exemplified in a striking manner with regard to Sweden. Intelligence having been received from that country, that a Literary Journal is to be published at *Abo*, the glad tidings were hailed by British cosmopolites, and circulated in a tone of exultation, as if they had been received, not from the native land of Linnæus and Gustavus III. but from New Holland and Kamtschatka. We, therefore, take the earliest opportunity of laying before our readers the following sketch of the state of literature in Sweden, which they may rest satisfied is strictly correct.

The Swedes, led by their form of government to early reflection on the true interests of states, and on the correlative rights and duties of rulers and subjects, acquired sooner than the Danes and other Germanic nations, habits of profound investigation and philosophical research. From the peculiar complexion of their country, rich in mines, but poor in fruitful soil and manufactures, chemistry, mineralogy, metallurgy and natural history, naturally presented themselves to their attention as objects of great national importance, and they engaged in the study of those kindred sciences with equal ardour and success. In the year 1738, an Academy of Sciences was established at Stockholm, on a plan similar to that of the late Royal Academy of Sciences at Paris, illustrated by names inferior to none which have conferred distinction and glory on the first literary societies in Europe. The Transactions of the Swedish Academy, the first volume of which was published in 1739, forms at present a voluminous work, replete with a variety of profound observations and ingenious remarks, the aggregate result of the meritorious labours and researches of its illustrious members, and other literati of distinguished eminence.

In a country, which boasts of a *Linnæan* Society, an enumeration of the transcendent merits of the immortal Linnæus would be little less than an insult offered to the enlightened part of the public, although many a literary coxcomb may yet be tempted to exclaim on the Swedish origin of that unrivalled con-

fident of nature, with *Montesquieu's* Parisian cockney, —"Comment peut-on être Suedois?" *Bergman*, *Cronstedt*, *Vallerius*, are also names not unknown in this country, and many of their works, translated into English, have experienced the reception they deserve. We shall, therefore, abstain from reciting their meritorious labours in the departments of chemistry and mineralogy, and restrict our observations to those Swedish literati whose merits have hitherto attained less celebrity in this country.

At a period, when in other parts of Europe the art of historical composition was but little understood, *Dalin* published about 1740 a history of his country, in which the results of deep research, guided by uncommon philosophical acuteness, are recorded in that simple yet dignified style from which a historian should never depart.

There is no mineral in "Nature's vast domain," an intimate acquaintance with the nature and innate properties of which is more universally interesting and useful than that of iron. *Rynman*, inspector of the mines of *Dannemora*, undertook the arduous task of ascertaining its native qualities by a wonderful variety of experiments and researches, and his exertions have in a great measure been crowned with success.

The theory of ship-building, a theory of incalculable value to this country, has been carried by *Chapman* to a degree of perfection, of which our readers will be able to form some idea, when we inform them, that his treatise on that subject, a short time after its appearance, was translated into French by *Clairbois*, one of the first ship-builders [ingenieurs constructeurs] of the French navy.*

The Swedes, who have so eminently distinguished themselves in the higher departments of scientific pursuits, have not been equally successful in the less elevated walks of the belles lettres, or polite literature. *Stirnhielm*, it is true, published, as early as the middle of the seventeenth century, a collection of musical dramas, which are still held in high estimation in Sweden; *Gyllenberg* is a good lyric poet; *Belman*, a celebrated Swedish "*improvvisatore*", has edited odes which possess some merit; *Vallerius* has published an excellent translation of Solomon's Proverbs. Several of Racine's tragedies have with great felicity been rendered in Swedish, and *Gustavus* III. in addition to his heroic endowments and private virtues, was gifted with respectable talents both as an orator and a poet. But Sweden has not yet produced any poetical genius of superior excellence; she ranks in this point of view far beneath *Germany*, and is excelled even by *Denmark*.

Among the modern Swedish writers in prose, *Thorild* and *Biornstahl* hold a distinguished rank. That our readers may be able in some measure to appreciate the degree of culture attained by the Swedish tongue, we will conclude this article with a passage literally translated from the Travels, published by the latter, wherein he mentions the impression made in foreign countries by the revolution effected by Gustavus III.

"How many times, and in how many countries, have I been witness of the powerful impression produced abroad by a revolution so rapid and so unexpected, which on a sudden raised a powerless and despised kingdom to the highest admiration; first, of the eminent endowments of the monarch, and then of the increasing power and influence of the state. Scarce a day intervened between a realm set at nought in Europe, and a kingdom whose lustre proved offensive to many eyes, and became an object of admiration and envy. [illegible] sun burst forth through the thick clouds which overshadowed thee so long. May it never set, but with renewed lustre shine over thee from year to year." O. P.

* The title of the masterly work we allude to, is, "*Tractat om Skepps-byggeriet*," &c. Treatise on ship-building, &c. by Frederic Henry Chapman, knight of the Royal Order of the Sword, and Inspector of the Dock-yards of the Royal Navy.

MANNERS.

IT was remarked by a periodical writer, in 1718, that "the gay assemblies meet, and disperse, with the parliament;" that "public business and public diversions have the same season," and that "they serve to relieve each other." Such has ever since been the practice of the gay world, who are thus far observers of the due distribution of time, that every thing has its appointed season; but that public business and public diversions "serve to relieve each other" seems to require more demonstration than the anonymous writer just quoted has thought proper to supply. In common life, business and amusement are strangely apt to interfere, but doubtless it is otherwise in the great world, where amusement is business, and the consumption of time the only serious concern.

Of the amusements at present in vogue, there are none of very recent origin; but some have been considerably altered in their constitution, and some are falling into disuse. Of the latter, the MASQUERADE may be mentioned as an instance of an amusement forced upon the public contrary to the genius and disposition of the country. It was of foreign growth, introduced among us about a century ago by a French nobleman, and for a time supported by that class who always encourage the importation of foreign follies. Previous to that time, indeed, we read of masques at court and at the palaces of noblemen, but that was an amusement very different from the modern masquerade.

On certain occasions, in the course of the last century, we read of publick masquerades given, which afforded much satisfaction; they were attended by persons of rank and character, and sometimes of wit, who could support the elegant ralliery and quick repartee necessary to give effect to the various personifications. But this does not appear to have often been the case; and another quotation from the paper above-mentioned, will show that the symptoms of declension visible in our modern masquerades were nearly coeval with the amusement itself in this country.

"The wearing of an odd mask," says this author,* "or a whimsical habit, is a very poor, mechanical way of being witty; and, I am pleased to find, our masqueraders completely aukward in their borrowed characters. Without answering questions, they expect their dress should speak for them. They stalk about

* The Freethinker, No. 68, Nov. 14, 1718.

like a crowd of mutes; and the great room in the Haymarket, upon these occasions, resembles the wardrobe of some ancient Gothic King, animated by goblins"

Of late years, masquerades have so considerably declined in point of *amusement*, that, if we may credit the newspaper reports, which are seldom on the unfavourable side, it is not easy to conceive any assembly more dull, "stale, flat, and unprofitable." Soon after the doors are opened, some hundreds of nuisances enter, [illegible] remarkably witty, and each with a reply at his tongue's end to a question which probably will never be asked, or ready with a question which no one is able, or will take the trouble to answer. The ammunition being thus expended in *salutes*, we are not to be surprised if the parties are defeated when in actual engagement, if perchance there should be any present who can support half a dialogue, and would be glad of a partner to take the trouble of the other half. The common expectations, however, which every new entertainment excites, or every repetition of an old entertainment, together with the successive appearance of a great variety of dresses, which may be worth looking at, keep up the spirits of the company for an hour or two; but after that comes the unconquerable difficulty of supporting characters to which they had no previous qualification, except that of hiring the garb, and giving security that it should be returned whole.

In this dilemma, the supper is announced, and the character necessary to be supported in a scramble for cold ham and chickens being very natural, we see now a display of talents without any disguise, and a developement of character, as to language and behaviour, which would not disgrace the tavern or the bagnio. The influence of "genuine wines of the first flavour" begins now to appear, and the conversation takes a turn peculiarly characteristic of the speakers, nine tenths of whom are rakes and strumpets of the very lowest order, and tricked out for the night in dresses only a degree more splendid than those in which they appear in the box-lobby of the theatre, the king's highway, or the piazzas of Covent-garden.

If this be not a just description of a modern masquerade, we are deceived not only by the evidence of ocular demonstration, but by the authority of information. In such a state of things, we cannot reasonably expect that persons of rank will visit masquerades. If they do *take a frolic* of this kind, they groupe together for mutual support, parade the rooms for an hour, and then depart to some assembly of their own, where at least they can be more certain of the company. It would be a poor compliment to persons of rank to suppose that they would sit down to supper with a motley crowd of rakes, women of the town, sharpers and swindlers of all descriptions, at a seven-shilling ordinary. As an inducement, however, to prevent their withdrawing from the place, they are told that private rooms may be engaged for supper, and such are sometimes bespoke, but this, after all, is from the purpose of a *public* amusement.

Within twenty years, the price of a masquerade ticket was two guineas, or a guinea and a half; it descended then to a guinea, at which it stood a considerable time, supper being still included. As the amusement declined more and more in popularity, a scheme was contrived to have a masquerade at half-a-guinea, and supper to be paid for, by those who chose any, at a certain price *per* head. Nothing could be better contrived for the description of persons who usually frequent masquerades: they could now meet, at a low price, form their schemes of debauchery or depredation, buy and sell, and carry on the usual traffic of folly with prostitution, and reserve the *surplus* saved by the low price of admission, for other and more private purposes.

To render this *cheap* entertainment wonderfully inviting, it has sometimes been usual with the managers to hire the lower sort of players, singers, or dancers to form groupes for the amusement of their visitors, but with all the inducements of price, and professional assistance, with all the hired wit of Covent-garden and Drury-lane, the balance has been generally against the projector. Of late, therefore, another expedient has been hit upon, which in a record of manners we cannot with propriety omit, but which, if recorded of any other nation, would perhaps have been received with contempt. Indeed we scarcely know how to to mention it with gravity, nor whether in foreign countries, or in our own country a few years hence, we shall receive credit, but in the mean time we are certainly able to appeal to all our contemporaries for the truth of what we are now alluding to.

The irresistible inducement, then, which has for two or three years been held out to "an enlightened age," is that of a TWELFTH CAKE! *Fifty* of these sweet persuasives are displayed in liquorish show; and the first four hundred persons who enter the masquerade receive a ticket entitling them to draw by lottery for one of these *twelfth cakes*. Seven blanks to a prize is a scheme not much in favour of the adventurer; but as he pays no more for his chance than the trouble of coming early, perhaps some may think the risk not much greater than that of the State Lottery, while the favours fortune disposes here must certainly be deemed of inestimable value, since, in the opinion of the managers, a British public, a nation of wise and thinking men, or, if the reader pleases, a nation not absolutely children, boys in petticoats, and girls in frocks, can be induced to go to a masquerade with the fond hope of acquiring a *plumb cake!* We ask, what our journals and papers, who so eagerly watch the frivolous pursuits of a French metropolis, on purpose to censure them, would have said, if this mode of gulling one part of the publick, and insulting the other, had originated in Paris? Combined with other circumstances, would they not have asserted, how truly our nation must judge, that the French were become a nation of drivellers, sunk to the lowest state of childishness or fatuity, for "at a late masquerade, the company drew lots for fifty fricassees of frogs prepared by the Chief Consul's chief cook!"

As a masquerade in this country has never been one of our authorized, or, if we may so speak, *constituted* entertainments, like the drama, it has generally been a speculation of individuals, of late generally the pastry-cooks and tavern-keepers, to raise a temporary supply. The rational part of the public have long.

been convinced that it is not suited to the genius of the English, and can account for its decline, without supposing the nation to be wiser or better than when it was first introduced. We are told, indeed, that a masquerade in France or Italy is an amusement kept up with a vivacity characteristic of these nations, and that it is unsuitable to the dull, thinking character of the English. We are not sorry to hear this in point of fact, but in point of comparison we would repel the implied inferiority of our nation. If a masquerade can be supported only by a mere flow of animal spirits, by a vivacity from which reason revolts, and which can yield no pleasure on reflection, we are not sorry that our countrymen are disqualified by nature and education. But if it be asserted that foreign masquerades are indebted for their success to an inexhaustible flow of wit, we can appeal to a comparative view of the wits of England and France in the drama, the belles-lettres, or the lighter compositions of the muse, for a much fairer criterion of superiority than the impertinent prattle of a masquerade could ever exhibit.

When an amusement is adverse to the habits and disposition of a people, it must naturally decline, or where presented, it must be forced upon public attention by some pretences of novelty, or some attractions of uncommon splendour. This will account for those persuasive paragraphs in the newspapers, for some days previous to an attempt of this kind, which, there is reason to think, still produce a certain degree of belief, although repeated experience ought long ago to have proved, that they are among the meanest delusions that can be practised upon common credulity. Much also, it is well known, may be done by a few tickets judiciously distributed among that class, who in these, and some other subjects, seem to have a power of attorney to *think* for the public.

But these shifts cannot last long, and the *cast* of visitors who yet frequent masquerades, proves that they are no longer worthy of the attention either of the strictly fashionable, or the moral world; and if, which appears to be the truth, they are now only convenient opportunities for associations of such parties as never ought to meet, and for the confirmation of youth in every species of debauchery, if it be almost a disgrace for a person of decent character to avow having been present, there can be no reason why a final stop should not be put to them by authority. It is not much that the mere force of law can do to correct public licentiousness, perhaps it is much less than persons of a legislative disposition may think; but still it is enough to encourage the due execution of such wholesome checks as our ancestors have provided. We may not be able to prevent the private commerce of vice and folly, but surely we may put a stop to its public markets. We may not be able to turn the hearts of the corrupters of youth, and the destroyers of innocence, but we may check the boldness which they acquire by association. If we cannot foresee or prevent the private machinations of the enemies of virtue and chastity, of integrity and of happiness, let us not afford them inviting conveniences, and easy opportunities.

We meant to have offered some remarks, historical and statistic, on the other amusements of the winter-world, but the length to which the present speculation has extended, obliges us to defer those to a future opportunity.

POLITICS.

On the Tonnage Duty.

THE ship-owners have been so very loud in their complaints against this particular impost and have called the attention of the public with so much studied industry to their intention of applying to Parliament for a repeal of the Act which imposes it, that they have provoked us to inquire a little into the grounds of their dissatisfaction.

We do not think that the ship-owners have been well advised, with regard to that high tone of importance, not to say presumption, which they have assumed both toward the minister, and toward the public. It is far from our inclination to dispute the right which these traders possess, to have their concerns attended to, both by the minister, and by the legislature, and their grievances redressed, if any be found to exist. This is a rightful claim, which belongs to them in common with every other class of the citizens. And we shall be the last persons in the world to recommend a false and servile tone of address, instead of simplicity and manly freedom, toward minister, parliament, or king. But the ship-owners present themselves before the public, and inform us that they went to the minister, and told him, that they were the most important class of men in the community; that his predecessor understood this very well, and treated them accordingly; but that he is either foolish enough not to understand it, or negligent enough of his duty not to regard it. Now though this may be very pardonable as one of those exaggerations of self-love which are so extremely natural; yet we know that the exaggerations of interested parties have been the origin of many pernicious measures; in particular we know that the interested exaggerations and clamours of merchants and traders have so often partly persuaded and partly intimidated ministers into measures contrary to the interest of their country, that the reason of their demands cannot be too carefully examined. And we certainly would not advise remitting any strictness in the scrutiny, when the demand is made in a peremptory manner.

It is possible that we may be mistaken; but there is something in the proceedings of the ship-owners, which to us looks extremely like a design to intimidate the minister into a compliance with their wishes, by the danger of raising against him the popular prejudice. What else can any one think of their proclaiming that the security of our king's throne, and the independence of our country depends altogether upon our navy; that the glory of the navy depends altogether upon the prosperity of the ship-owners; that not only Mr. Pitt, and all British ministers, the present only excepted, had made this a guiding rule of their administration, but Bonaparte is acting upon it with the greatest earnestness, and this is one of the chief engines, by which he is likely to overturn this country?

We shall first examine, whether the ship-owners

are really aggrieved by this tax. If it be demonstrable that they are not, this will greatly simplify the question, and we shall then be more able to understand that claim to extraordinary encouragement which they set up.

By the act, of which the ship-owners wish for the repeal, all vessels sailing to any part of Europe, to Africa, America or the West Indies, are charged with a duty of one shilling per ton, each time of entering either inwards or outwards; three shillings per ton sailing to the East Indies; and six-pence sailing to Jersey, or any other of the islands in the British seas, or to Newfoundland, and the places belonging to us in its neighbourhood.

The reason which they bring to urge the repeal of these duties is but one; that the shipping trade is at present not a profitable one. And they have altogether begged the question that the tonnage duty is the cause of that unprofitableness.

The whole of their reasonings and clamour is supported by the sophistry of representing the tonnage duty as entirely paid by them, and as a deduction from their profits, and they really seem to think themselves that this is the case. Such ignorance is a little surprising. There is scarce any other class of traders, we will venture to say, who do not know that any tax, laid upon their trade, is not paid by them, but by the persons for whose service the trade is exercised. A tax is laid upon post-chaises of so much per mile, as often as they are used. This may very well be considered as a sort of tonnage duty; a post-chaise, in like manner as a ship, pays so much for its freight, every clearance out, and every clearance in, according to the ports, or inns, between which it plies. But did ever the post-masters come forward and tell the public that all this tax was paid by them, and was an unreasonable deduction from their profits? The post-masters know, and every body else knows, that the tax is paid by their customers, not by them. Hackney coaches are taxed at so much a week. But does any body suppose that this tax is paid by the hackney coach-men? Undoubtedly not. The hackney coach-men earn a reward for their labour, and a profit on the capital fixed in their horses and coach, at least equal to what they could earn by any other employment of them, over and above the tax; of course the tax is not paid by them but by their employers. Who imagines that when an additional tax is laid upon leather, it is paid either by the tanner, or by the shoemaker, and not by the wearer of shoes? In like manner, how perfectly ridiculous is it in the ship-owners to cry out, as if a tax laid on the employment of shipping affected them, any more than a tax on the employment of post-chaises affects the post-masters, or one on leather affects the tanners and shoemakers?

But, say the ship-owners, we are compelled to pay so much tonnage to government, and we have been able to make no addition to the rate of tonnage upon our employers. If we had been able to add this to our ordinary rate of freight, we should have had no complaint. But now we are unable to carry on our business, and only two ships have been laid upon the stocks for the merchant service since the conclusion of the late war.

Granting the fact to be as it is here stated, it cannot surely require many words to demonstrate that this is not the effect of the tonnage duty; and that the rate of ship owners' profit would have been altogether as low, had no tonnage duty been imposed. It is well known to all who have bestowed any reflection upon the nature of mercantile transactions, that both the wages of labour, and the profits of stock, in every particular employment of them, are raised or diminished, according to the proportion between the demand for them in that employment, and the quantity of either to be employed. Let us suppose that there is a certain quantity of shipping occupied to carry the merchandize of Great Britain; and that the profit of the ship-owners, with this quantity, is a reasonable profit. If we suppose the merchandize to be increased, without an increase of the shipping, the merchants, every man being eager to have his goods carried first, will bid above one another to obtain this advantage, and thus will raise the rate of freight. If, on the other hand, the shipping be increased without any increase of goods to be carried, there will be more ships than can well be employed, those who are in danger of wanting employment will lower their terms in order to obtain it, and the rate of freight by this means will fall. This is the natural process of the rise and fall of ship-owners' profit, as it is of the profit of stock in every other species of employment; and is entirely independent of the increase or diminution of duties. Suppose that the tonnage duty imposed had been triple of what it is now; if there had been more British goods to be carried than there were ships to carry it, would not the merchants have bid above one another for the carriage, till they had raised the rate of freight so high as to induce the employment of more capital in that way, till such time as their demand was satisfied? And if, on the other hand, the tax were taken off, were there more ships wanting employment, than there is business to employ, would not the ship-owners bid against one another, till their profits became so low, that one individual after another would be induced to leave the trade, till such time as the proper balance between the demand and the supply should be established, and the profit return to a reasonable rate?

The shipping-trade, since the beginning of the late war, has experienced all these changes. Immediately before that war, the rate of ship-owners' profit, we may suppose, was the reasonable rate. When the war began, a number of transports were wanted to attend our fleets, and to transport provisions to our armies in distant parts. The ships employed for this purpose were the merchant ships. When these, therefore, were withdrawn from the merchant service, there were fewer ships than the goods to be carried required; a competition for these arose among the merchants, and the ship-owners were enabled to raise the rate of freights. The height of their profits quickly induced others to turn their attention to the same trade, and a multitude of new ships were built. But the demand for ships continued to increase so fast, both by the want of a greater number of transports from the exigencies of the war, and by the increase of our foreign and carrying trade, that it more than kept pace with the supply of new ships, however quick, and

the rate of ship-owners' profit kept up during the war. When that, however, was terminated, the numerous vessels employed as transports were all at once restored to the merchant service, and increased to a great degree the competition for employment. It deserves to be remarked too, that in a time of peace, when ships are not detained waiting for convoy, nor receive any of the other interruptions of war, they are enabled to do more business; and will sometimes make two voyages, where before they made only one. From these causes the number of merchant ships became greater than the trade of the country required, and the rate of their freight sunk in proportion. But these fluctuations, to which all trade is liable, it is the business of the traders themselves to foresee, and provide for; and as they never think of imparting any share of their profits to the public during the period of increase, so they have no title to require the public to supply the deficiency during the period of diminution. This, however, is what they are very apt to do; and by their outcries, too, sometimes obtain their request.

When the ship-owners, therefore, tell the minister that only two ships have been built for the merchant service since the termination of the war, the only conclusion is that a sufficient number is built already, and that the trade of the country does not require any more. It would be too ridiculous to say, that if the trade of the country wanted more ships, more would not quickly be provided. And if the trade of the country does not want any more, were the minister even to grant a tonnage premium upon shipping, the competition of the ship-owners would quickly reduce their profits to what they are at present.

Since no proposition in politics is more completely demonstrated, than that every tax laid upon any trade is not paid by the trader, but by him who employs the trader; it is plain that the tonnage duty is not, properly speaking, a tax upon ships, but upon what is carried by the ships. It is a tax upon all goods imported and exported between Great Britain and all foreign parts. It is, therefore, exactly equivalent to a custom-house tax; and its effect upon the shipping is of the very same nature with that species of impost. In so far as, by raising the price of the goods imported or exported, it diminishes their consumption, it lessens the employment of shipping, and has a tendency to lower the rate of freight. But if it be certain that the tonnage duty is too small to have had any sensible effect upon the import and export trade of Britain, or to lessen in the smallest degree the employment of the shipping, neither can it have had any material influence upon the profit or loss of the ship-owners; for which they have to look to quite different causes.

What, then, becomes of the cries of this body of men respecting the dependance of the very salvation of this country upon the prosperity of the shipping interest? It is evident, in the first place, that they have nothing to do with the question; because the shipping interest is not injured by the tonnage duty. But, in the next place, we do very highly disapprove of that language which has been so much in use of late, as if we owed our independence solely to our navy. It is a language which has a tendency to corrupt the spirit of the people. Accustom a people to think themselves unable to defend themselves, and they will quickly become so. We have high obligations to our navy, because they have kept our enemies at a distance, and left us in tranquillity to pursue our industry, and our pleasures. But we are not unable to grapple with our enemies, were they to come to our doors. Is Great Britain, because she is an island, and has a victorious navy, the only country in Europe whose defence does not lie in the hearts and arms of her people? Were the sea which divides us from the rest of Europe to be dried up in one night, should we be unable to defend the territory which we possess, against whoever should presume to invade us? Then we have little reason to be proud of our character: for the history of the world affords us abundance of proof, that a number equal to the half of ours, of real men, would withstand, on their own territory, the world in arms. Let us not, therefore, pitifully flatter our navy, and exaggerate its importance, till we degrade the minds of the people, and by making them lean altogether to others for their defence, make them incapable of defending themselves. If ever the spirit of our sailors comes to be unsupported by the spirit of the people from the midst of whom they are taken, they will not long remain much worth.

The business of the ship-owners, then, if they wanted a repeal of the tonnage duty, was to have done, as the booksellers and stationers did, prove that the tax had operated to the diminution of the trade. But when the employment of ships is proved by the custom-house books to have increased since the imposition of tonnage duty, to make a parade of the expence of ship-building, and of the low rate of freight, to talk to the minister of the care which his predecessors took of the interest of the ship-owners, and of the meritorious exploits of Bonaparte in the same service, to tell us that the security of the king's throne depends upon the attention paid to the shipping interest, and that therefore the tonnage duty ought immediately to be repealed, provokes a smile. They would serve their purpose much more effectually by demanding a repeal of all the custom-house duties at once. For this, by lowering materially the price of all goods exported and imported, would increase the employment of shipping, and by necessary consequence raise its hire. And undoubtedly if the security of the king's throne depends upon the encouragement of the ship-owners, we cannot purchase it at too high a price.

Having considered the plea of the ship-owners, let us, however, investigate a little farther the nature of the tonnage duty; and endeavour to appreciate its policy or impolicy, as a tax on importation and exportation. It possesses one advantage over custom-house duties, that it is much more simple, and more easily collected. But this we are afraid is more than counterbalanced by defects of another kind. It is evident that it is a tax which falls most heavily upon the most bulky commodities, the commodities which are the least able to bear any tax. A thousand pounds worth of spiceries from the East Indies are scarcely charged a few shillings; the same value of corn from America must pay a great many pounds. The same is the case with exportation. The produce of some

of our most exquisite manufactures, exported to the greatest value, pays hardly any part of this tax. But bulky commodities, as corn, for example, must pay out of all proportion to their value. The inequality of this tax is such, that upon some articles it is probably two or three hundred times greater than upon others of the same value.

So great and so obvious a defect as this cannot fail to excite some wonder, that such a tax, in such a state of knowledge as the present, should have been proposed; and still more that it should have passed through both houses of parliament without having its vices exposed. For besides its falling heaviest, and by a most extraordinary disproportion, upon the goods least able to bear a high tax, it falls heaviest upon those goods which it is most for the interest of the country to have exported and imported the most freely, and scarcely affects at all those which can safely be taxed to the greatest amount. For example, the goods imported, which include the greatest value in the smallest bulk, are in general the more refined materials of luxury, imported for immediate consumption. Any tax upon them therefore affects the community no further than by taking a greater or smaller proportion from the gratifications of the rich man to apply to the support of the state. But the more bulky commodities are of a very different importance. The greater part of these are the materials of our manufactures; and the manufactures and whole industry of the country are injured by any obstruction thrown in the way of procuring them.

We import from the Baltic, wood, iron, hemp, pitch, &c. Most of these are very bulky commodities. Of course their price must be considerably enhanced by the operation of this tax. These are the materials employed in one of the most important undoubtedly of our manufactures, the ship-building, the expence of which must be sensibly increased by this means. This then is the operation of the tax, of which the ship-owners have chiefly reason to complain.

Flax, too, and cotton and wool are bulky commodities. These are the materials of the chief manufactures of the country. A very large proportion of the flax employed in the linen manufacture is foreign. The whole material of the cotton manufacture is imported, and so is a considerable proportion even of the wool employed in the woollen manufacture. Now the price of all these articles is much more affected by this tax, than the laces of France, or the wines of Italy. These manufactures then undoubtedly meet with a certain discouragement from this tax.

It is observable too, that being a tax upon the raw material, it is much more injurious to the manufacture, than an equal sum raised upon the finished commodity. It enhances much more the price of the finished commodity. Being advanced by the original importer he must receive an indemnity for the additional capital he has employed; a new indemnity must be given to every man through whose hands the material passes, till it comes into those of the consumer; and thus a tax may be sometimes doubled and tripled between its original imposition, and its final payment.

Of all commodities imported, corn in proportion to the value, is perhaps the most bulky. A tax of a shilling a ton upon the importation of corn is a very considerable tax. It is proved, that Great Britain does not supply herself with corn, by a very considerable deficiency. This tax, therefore, must tend strongly to keep up the price of corn. And as the price of corn necessarily regulates, sooner or later, the wages of the workmen, this conspires with the weight of our taxes, to impose that high price upon the produce of our manufactures, which tends to unfit them for standing the competition of foreign nations.

Two cases more than commonly interesting in the administration of law have occurred. We allude to the trial of Col. Despard, and his fellow-sufferers for high treason, and that of Mr. Peltier for a libel against the First Consul of France.

The trial of Colonel Despard is eminent, and we hope will be for ever remembered, as an example of that candid, and liberal, and dispassionate tone of prosecution which does honour to a government, and renders the execution of a criminal a great, and instructive example. To use an expression of the learned judge who presided on this occasion, we are confident that this trial has had a most *sanative* effect on the minds of the people. The behaviour of the multitude at the place of execution, not composed, certainly, of the most virtuous part of the community, is a gratifying proof of this. They exhibited marks not only of order, and of a conviction of the justice of the awful transaction before them, but of a momentary subjugation to the moral feelings of human nature such as is not often discovered by an assembly of a similar description.

We congratulate Bonaparte, not so much on having silenced, or punished an unfortunate, or if he chuses, a malicious exile, as on the lesson which he may learn from this trial, and which he will perhaps attend to the more, as it has terminated in his favour. It is not necessary, in order to restrain the abuses of the press, to destroy its liberty. And if it were, better have its abuses in their utmost excess, than have its liberty destroyed. We are enemies, determined enemies to the use of that abusive language with respect to one another by which France and this country have disgraced themselves for some time past. And as we are satisfied that an attempt not merely to vilify and degrade the Chief Consul, but to excite men to assassinate him is contained in the papers published by Peltier, we subscribe to the justice of his condemnation. We honour Mr. Mackintosh however for the high warning he gave to the juries of this country to watch over the liberty of the press. And we are not sure that it was merely a lawyer's speech for his client, when he proclaimed that this was the beginning of a series of attacks upon it. The privilege of speaking our sentiments with a freedom almost unbounded of our own government, and governors, we have ever enjoyed; and to it we owe more of the excellence of that government than is generally reflected upon. And unquestionably common feeling, and common reason admit of still greater freedom, with regard to a foreign government. Any thing said against a government, in the country subject to it, may excite commotions among the people which a wise man would avoid. But what is said of foreign governments circulates chiefly in foreign countries, and among the higher orders of people, who are capable of judging of its truth or falsehood. And we have already, in this publication, stated our opinion of the powerful influence which the free discussion of the measures of different governments in the neighbouring countries must have to improve them.

As to instigation to assassination, or even to insurrection, against a foreign magistrate, the most prompt and decisive measures are unavoidable. But the attempt to vilify or

degrade, is an accusation so excessively vague, that it may be proved out of almost any thing. And if it be law, as stated by Lord Ellenborough, that this constitutes a libel against a foreign magistrate, we should tremble for the liberty of the press, did we not know that the interpretation of the law is in the hands of a British jury! It is a great, and an awful responsibility however which they may be called upon to sustain. And we conjure them as they regard the prosperity of their country, and of the human race, to look to it with the feelings which become men of virtue, and understanding.

NOTICE TO CORRESPONDENTS.

*** Viator's 3d and 4th Essay have been duly received, and shall be inserted as soon as possible.

Mortimer's lines shall have an early insertion.—We wish there were not so many instances of alliteration in the *Sonnet to December*.

ERRATA in the 7th Number.

Page 198, To the date of Cowper's death add 1800.
—— —— for Deseham *read* Dereham.
—— 205, in the article respecting the Antiquarian Society, for Horn-book in two instances, *read* House-book, and for Ferner *read* Turner.
—— 217, line 45, for reforming *read* informing.

CRITICAL REVIEW.

MR. SAMUEL HAMILTON begs leave to inform the Public, that, notwithstanding the loss he has sustained by the tremendous fire, which destroyed the whole of his premises on Wednesday night the 2d instant, the CRITICAL REVIEW will continue to be published with its accustomed regularity on the first day of every succeeding month. He feels much pleasure in being able to inform his literary Correspondents, that almost all the manuscripts intended for the ensuing or future numbers have escaped the flames; from having fortunately been at the time of the fire in the editor's possession.

A continuance of that patronage, both of literary characters and of the public, which has enabled Mr. HAMILTON to present a monthly epitome of universal learning, equally, as he trusts, characterised by a dignified impartiality and an elaborate research, is requested by him. He is obliged to several learned gentlemen who have lately complimented him upon the unrivalled attention paid in the CRITICAL REVIEW to the literature of the Continent, and the solicitude manifested to obtain and diffuse an early acquaintance with every work of importance, in whatever country published. It has been, and shall continue to be, his object to present a national work, not unworthy of the nation in which it appears: and while he is determined that the loss he has sustained shall, in no respect, relax his own exertions, he relies on the well-known liberality of his countrymen, that it will rather augment than diminish the support he has hitherto received, and which he is now proud to acknowledge.

*** Communications are requested to be addressed to Mr. S. HAMILTON, at Messrs. G. and J. Robinson's, Paternoster-row.

February 15, 1803.

THE CRITICAL REVIEW for FEBRUARY (which will be published on the 1st of March) will contain, among others, the following important and interesting articles:—I. Anderson's Account of the Expedition to Egypt.—II. Public Characters.—III. The Trident.—IV. Heberden's Medical Commentaries.—V. De Moleville's Annals of the French Revolution,—VI. Forster's Translation of the Arabian Night's Entertainments.—VII. Bell's Principles of Surgery.—VIII. Barrow's Essay on Education.—IX. Estlin's Discourses.—X. Miss Baillie's Series of Plays, vol. II.—XI. A New Translation of the Lyrics of Horace.—XII. Gardiner's Sermons.—XIII. Reply to Dr. Lettsom's Apology for differing with the Monthly and Critical Reviews.—Monthly Catalogue, consisting of criticisms on numerous Books and Pamphlets on the following subjects—Politics—Religion—Medicine—Education—Drama—Novels—Poetry—Miscellanies, &c.

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NUMBER 9.] THURSDAY, MARCH 3, 1803.

PHYSICS.

I. *Of the Utility of the Thermometer in Navigation.*

A GOOD many years ago, Jonathan Williams, Esq. who, if we are not mistaken, is nephew to the celebrated Dr. Franklin, published, in the third volume of the American Transactions, a method of estimating the depth of the sea by means of the thermometer. He had observed, in his voyages across the Atlantic, that the temperature of the sea always diminished with its depth, and that the approach of a vessel to a rock or a sand bank was indicated by this diminution of temperature. He therefore proposed the thermometer as a useful instrument in the hands of seamen, and gave a number of instances of its utility. We do not know whether the masters of ships have taken advantage of this hint; or if they have, how far the method of Mr. Williams has succeeded upon trial. But the subject is certainly of importance, and therefore ought to be fairly examined by seamen. It is well known that *sounding* is not always sufficient to point out the impending danger; if the thermometer does this, as Mr. Williams affirms that it does, it might be the means of saving many ships and men, which without its friendly aid must go to the bottom.

We are happy to observe another evidence in favour of Mr. Williams's observations. In the fifth volume of the American Transactions, Mr. Strickland has published an account of the experiments which he made upon the temperature of the ocean in a voyage from England to New York, and back again. In every instance the thermometer was observed to sink considerably as the water became shallower. Thus, on the 2d August the thermometer, plunged into the sea, stood at 72°. They were supposed at the time to be sailing in the Gulf stream. On the 22d, it sunk to 68°, and on the 23d to 62°. This fall indicated their approach to Jaquet bank. On the 24th, when at the edge of the bank, the thermometer stood at 58°; and on the 25th, when on the bank, it stood at 56°. On the 26th, when on the grand bank, the thermometer stood at 52°. Thus there is in summer a difference of 20 degrees between the water on the bank, and in the same latitude not far to the east of it.

The captain was so much struck with the regular gradation of the thermometer on the approach of the bank, that he afterwards paid particular attention to it. He found, as Mr. Strickland had foretold, that it indicated equally by its rise when the ship had quitted the bank, and observed, that as it would still more accurately define the limits of the Gulf stream, as it is hotter than any other part of the surrounding ocean, he might with great advantage make his passage to New York, by following the northern eddy of the stream. This eddy he knew to exist, but was ignorant of its limits, or how to discover them except by the thermometer. He succeeded, and reached New York in nine days after leaving the bank. In this course from Newfoundland the thermometer indicated every where the approach of danger. On the 5th of September, the vicinity of Sable island occasioned a fall of 7°, and on the 7th, a bank not marked in any chart, produced a fall of 11°. On sounding, the ground was struck at 55 fathom, fine white sand with some specks of red and blue.

When Mr. Strickland returned to England, the thermometer fell no less than 20 degrees on passing to the south-east of Newfoundland, and rose again 9 degrees, in the same longitude, where in the outward-bound voyage they had supposed themselves in the Gulf stream. The fall of the thermometer from that place, as the coast of Europe approached, was very remarkable and uniform.

II. *On Prussiate of Copper as a Pigment.* *By* Charles Hatchett, *Esq.**

Neither Bergman, nor any other chemist, as far as I am acquainted, has pointed out to artists the utility of prussiate of copper as a pigment. During some late experiments, I was much struck with the beauty of this precipitate, and was therefore induced to make several trials of it as a paint; the results exceeded my most sanguine expectations. I afterwards prepared a large quantity, which, at my request, several gentlemen (particularly B. West, Esq. P R.A. John Trumbull, Esq. and Sir H. C. Englefield) were so obliging to try in oil, and in water, and I have had the satisfaction to learn, that in beauty and intensity it surpasses every brown paint now in use, with the additional advantage, that, by reason of its purple tint, it forms, with white, various shades of bloom or lilac colour, which do not appear liable to fade like those which are formed by means of lake.

The prussiates obtained from acetite, sulphate, nitrate, and muriate of copper, are all very beautiful, but the finest and deepest colour is afforded by the muriate. I have found also that prussiate of lime can be better depended upon for this purpose than prussiate of potash. The best mode therefore of forming this pigment, is to take green muriate of copper, diluted with about ten parts of distilled or rain water, and to pour in prussiate of lime until the whole is precipitated; the prussiate of copper is then to be well washed with cold water on the filter, and to be dried without heat.

III. *On the Change of Place of different kinds of Air, through several interposing Substances.* *By* Dr. Priestley.†

To the indefatigable and sagacious researches of Dr. Priestley we are indebted for a great deal of the progress which has been made in the investigation of

* From the Journals of the Royal Institution of Great-Britain.

† American Transactions, v. 14.

the properties of gaseous bodies, both mechanical and chemical. Of the mechanical properties of those bodies none is more singular, or more unaccountable, than the transposition of them through vessels which are apparently air-tight. Dr. Priestley ascertained, that if water be converted into vapour in an earthen retort, the vapour makes its escape through the pores of the retort, while the external air enters through the same pores, and may be collected by placing inverted jars over the beak of the retort plunged into a pneumatic trough. He ascertained also, that if a gas be put into an air-tight bladder, and this bladder be put into a jar full of gas, capable of combining chemically with the gas in the bladder, the combination takes place through the pores of the bladder. He has since extended, and diversified these experiments; and has observed that the same thing happens with all gases, whether they have an affinity for each other or not; and in circumstances where it would not be expected, and with which experimentors ought to be acquainted, in order to prevent mistakes of considerable consequence.

1. He procured a number of earthen vessels, apparently air tight, capable of holding about an ounce measure. He filled them with gas, and placed them inverted on a jarful of a different gas. On heating these vessels by means of a burning lens, he always found after the experiment that the gas within the earthen vessel was the same with that which had been on the outside of it, and *vice versa*. In some cases the mixture was a chemical one, while at other times the gases were only diffused through one another. Oxygen gas in the earthen vessel was surrounded with hydrogen gas. After applying the lens for half an hour, the gas in the earthen vessel was inflammable, and increased in quantity one half. On reversing the position of the two gases, he found that the hydrogen gas in the earthen vessel was replaced by oxygen gas, and that the oxygen gas on the outside was somewhat diminished in purity.

2. When the two gases were separated by a bladder, and no heat applied, the transmission was frequently made both ways through the bladder. A tanned bladder was filled with oxygen gas, and left for a month in a jar of hydrogen gas. The gas in the bladder and in the jar were found to be mixtures of oxygen and hydrogen gases, and in the same proportion. On reversing the experiment the result was the same, only a quantity of carbonic acid gas was detected within the bladder, and a somewhat less proportion in the jar.

3. If an earthen tube, closed at one end, was filled with gas, and its open end plunged in water or mercury, on exposing the closed end to a red heat in a furnace, the gas within it in a short time became exactly the same with the gas without, at the same time there was always some change in the quantity of gas within the tube. Three ounce measures and a half of hydrogen gas treated in this manner came out two ounce measures of common air; 3½ ounce measures of nitrous gas came out 2¼ of common air; the same quantity of azotic gas came out 2⅞ ounce measures of common air; but the same quantity of oxygen gas came out encreased to 4 ounce measures of common air. Similar changes were produced on muriatic acid gas, sulphurous acid gas, and ammoniacal gas. When the tube was filled with water, 2½ ounce measures of common air were found in it after the application of the heat.

4. A mixture of oxygen and hydrogen gases treated in this way did not explode, and, as in other cases, common air was found in its place. This mixture does not explode in a red-hot gun-barrel, a copper tube, or a silver tube, how suddenly soever the heat be applied. Neither does it explode in a tube of flint glass; but the glass becomes black in consequence of the reduction of the oxide of lead which it contains. In a tube of green glass, in which there is no oxide of lead, the gases explode.

5. When the different gases were put into earthen retorts whose beaks were plunged under water, and placed so near the fire, that they were maintained at a temperature nearly equal to that of boiling water, the very same changes were produced. The gases all disappeared, and common air was found in their place. Even in glass retorts, with their beaks plunged in water, the same changes took place if sufficient time was allowed. At least 4 ounce measures of hydrogen gas, exposed to heat in this manner, were found after the experiment of the same bulk as at first, but no longer pure hydrogen, but a mixture of that gas and common air, capable of exploding when brought into contact with a red-hot body.

6. The same change took place in glass jars cracked and mended again with cement; but not if the crack was air tight without the necessity of using any kind of cement.

IV. *American Transactions, Vol. 5th.*

This volume, published in Philadelphia in 1802, contains 22 papers, besides two additional in the appendix. The first six are by Dr. Priestley, and have either been noticed by us already, or shall be noticed very soon. 7. Some Account of the Poisonous and Injurious Honey of North America. By Benjamin Smith Barton. This curious paper has been published long ago by the author in Nicholson's Journal, and is therefore well known. He endeavours to prove, that the bad quality of some kinds of the North American honey is owing to the poisonous plants from which the bees gather it. 8. On the Epheron Leukon, usually called the white fly of Passaick river. This is an ephemerous fly, produced after sun set, and dying in about an hour after its birth. 9. Remarks on certain articles found in an Indian tumulus of Cincinnati, and now deposited in the Museum of the American Philosophical Society. By George Turner. This is merely intended to correct some mistakes that occur in a paper published in the last volume of the American Transactions. 10. On the Clupea tyrannus, and Oniscus prægustator. We have given the substance of this curious paper in the last Number of the Literary Journal. 11 and 12. A description of a newly-invented Globe Time-piece, and of a pendant Planetarium. By Burgiss Allison. 13. On the use of the Thermometer in Navigation. By William Strickland, of which we have given the substance in this paper. 14. Sur les Vegetaux, les polypes, et les Insectes. By Dupont de Nemours.

This is a physiological paper, on which we shall make some animadversions in a future Number. 15. Memoirs on the Black Vomit. By Dr. Isaac Cathrall. 16. Observations on the Waters of the Ocean, &c. By Dr. Mitchell. This is a hypothetical paper, but it contains some curious and useful particulars, which we shall notice hereafter. 17. Description of a Stopper for the Openings by which the Sewers of Cities receive the Water of their Drains. By Mr. John Fraser, of Chelsea, London. This consists of a wooden hopper placed below the iron grating which usually closes the mouth of sewers to prevent foreign bodies from getting in. Below the hopper is placed a box as in the margin. Water fills the box, remains stagnant, shuts up the hopper, and prevents air from getting into the sewer. 18. A Memoir on Animal Cotton, or the Insect Fly Carrier. By M. Baudry Des Lozieres. An account of this curious paper has been given in the last Number of the Literary Journal. 19. Note concerning a Vegetable found under ground, in a letter from Colonel Bull. This gives an account of a vegetable in blossom, found on digging six feet below the surface of the earth, resembling the lilac, and exactly the same with similar vegetables that grew on the surface. Little satisfactory can be gathered from this note, as neither the species of plant, nor any thing particular respecting it is mentioned. 20 and 20. Astronomical and thermometrical Observations made on the boundary between the United States and his Catholic Majesty. By Andrew Ellicott. These two long memoirs are only interesting to Americans, as they point out the longitude and latitude of the most important points of the boundary of the United States on the west. 22. Observations on the figure of the Earth. By Joseph Clay. This is a refutation of the whimsical opinions of Bernardine St. Pierre. 23. Description of some Improvements in the common Fire-place. By C. W. Peale, and his son Raphael. The most important of these is a sliding *mantle* which may be lowered at pleasure. But as a part only of the improvements are published, we shall not attempt a particular account of them.—The appendix contains two papers on the method of preventing the decay of Peach trees. We shall give an account of these papers hereafter.

V. *On the preserving of Corn.*

It is stated in a German print, that to preserve rye, and secure it from insects and rats, nothing more is necessary than not to winnow it after being thrashed, and to lodge it in the granaries, mixed with the chaff. It keeps by this means three or four years without experiencing the smallest alteration, without even the necessity of being turned to preserve it from humidity and fermentation. It has been experienced that rye, which has been kept after this manner with its chaff, during years, is perfectly fit for seed. It is only necessary to be careful not to bring it into the barn, till it is thoroughly dry. To prevent rats and mice from entering into the barn or granary, put some wild vine, or hedge plant, upon the heaps; the smell of this wood is so offensive to these animals, that they will not approach it. The passage of moles too may be prevented, by placing pieces of the same shrub in their way.

It is well known in this country, that corn, if safe from the mice, may be kept sound for a great while in the straw; and it is extremely probable that the mixture of the chaff may have a strong effect of the same kind: it is probable too that not rye alone, but other grains also, partake of this advantage.

VI. *A New Varnish for Earthen-ware.*

Wagner, of Magdeburg, has lately discovered a new varnish for earthen ware, which he has generously published. To make it, white glass and soda in equal portions must be pounded together very fine, carefully sifted, and well mixed. The mixture is next exposed to a strong heat, till it is rendered very dry. It is after that put into vessels which have been already baked, it is then melted, and the varnish is made. It may be applied in the same manner as that in common use. The advantage of it is that it is safe, and can have none of those poisonous effects which arise from the decomposition of the lead varnish.

VII. *Quinologia, ó Tratado del Arbol de la Quina, &c. par Don Hipólito Ruiz.*

Suplemento à la Quinologia, &c. Par Don Hipólito Ruiz y Don Josef Pavon, &c.

Quinology, or Treatise on the Peruvian bark-tree, &c. by Don Hipólito Ruiz, &c.

Supplement to the Quinology, &c. by Don Hipólito Ruiz, and Don Joseph Pavon, Botanists of the department of Perú, and Fellows of the Royal Medical Society.

The information on the Cinchona or Peruvian bark-tree, which hitherto we have been able to collect from our best botanical and medical writers, is extremely unsatisfactory and defective, they having extracted their accounts from sources from which correct intelligence could not be expected. Condamine, their fountain-head of knowledge on this subject, resided, it is true, some time in Perú, and, therefore, had an opportunity of observing the living tree in its native soil. But Condamine was no botanist; he arrived in Perú altogether unprepared to investigate and determine the generic and specific character of that valuable tree; he actually mistook the *Cinchona glabra* for the *Cinchona officinalis*, and yet respectable English botanists have not hesitated to assure us that Condamine's description of that tree "is the only one on which we can *with confidence* rely." In this imperfect state of our knowledge of the Cinchona, it cannot but be highly gratifying to our medical and botanical readers to receive more satisfactory information on that head from two learned Spanish botanists, who were sent to Perú by the Spanish government with the particular charge to make a careful and minute enquiry into the different species of Cinchona which are natives of that country. Having spent upwards of ten years in the execution of that charge, Don Hipólito Ruiz published, on their return to Spain, the result of their observations and researches in the first

mentioned work, the justness and truth whereof they jointly vindicate in the supplement, adding an account of four species of the Peruvian bark-tree, discovered by Don Juan Tafalla, their successor in Perú, and a botanical description of the *Cinchona angustifolia* or orange-coloured Cinchona, found in the kingdom of Santa Fé.

We shall merely enumerate the different Peruvian species of Cinchona described in the treatises before us, to which our limits compel us to refer our readers for a more particular account thereof, but subjoin the specific character of the above Cinchona of Santa Fé, on account of its disparity from all other species we have hitherto been acquainted with.

Peruvian Species of Cinchona.

1. Cinchona Officinalis.
2. Cinchona Tenuis.
3. Cinchona Glabra.
4. Cinchona Purpurea.
5. Cinchona Lutescens.
6. Cinchona Pallescens.
7. Cinchona Fusca.
8. Cinchona Micrantha.
9. Cinchona Dichotoma.
10. Cinchona Glandulifera.
11. Cinchona Acutifolia.
12. Cinchona Laccifera.

Cinchona of Santa Fé.

Cinchona angustifolia: foliis lanceolatis angustis marginibus retroflexis, pedunculis axillaribus trifidis; laciniis 3-7 floris.

The specific character of that species of Cinchona, which by Spanish physicians and traders is called "Quina ó Cascarilla colorada," is not botanically determined, but the observations made by Ruiz, p. 85 of the Quinology, on the bark of that tree, leave but little doubt of its being the same tree, which by Dr. Woodville and other writers is named Red Peruvian bark-tree, Cinchona Rubra. By his account, that tree was discovered in 1785, in the woods of Riobamba, Cuenca and Jaen. The first bark was sold for very low prices at Guayaquil, but being sent by way of a trial to Cadiz, it was eagerly purchased by English merchants at the high price of sixty rials vellon, or three piastres per pound, and it is still held there in as high estimation as the finest officinal bark of Loxa. There are, by Ruiz' account, physicians in Spain, who prefer it in several diseases to all other known species of Peruvian bark, but Dr. Woodville's opinion, "that this was probably the kind *originally* brought to Europe," is incorrect. This was most certainly the Cinchona Officinalis of Loxa, the superior medicinal efficacy of which, in the hands of Sydenham, Lister and Morton, doubtless arose from its power not having been weakened by inferior sorts of bark, which the *cascarilleros* or bark-cutters, as well as the Spanish druggists, are at present accustomed to mix among the finer sorts.

Ruiz estimates the amount total of Peruvian bark annually exported from Perú and shipped in the ports of Guayaquil, Payta and Callao, at seven thousand arrobas, or one hundred and seventy-five thousand pounds, twelve thousand pounds being yearly consumed in the Spanish possessions in America, and the remainder sent to Europe, Asia and Africa. He gives very instructive accounts of the places where the above species of Cinchona are found, of the manner of cutting, drying and sorting, the bark, of the principal points to be attended to by dealers in bark in order to ascertain its quality, of the medicinal properties and virtues of the bark, of the extract prepared in the woods of Huánuco from bark fresh cut, and other interesting matters, brief abstracts whereof we shall occasionally lay before our readers in some of our future Numbers, and here merely observe, that as Linnæus intended to name the genus of Peruvian bark-trees after the Spanish nobleman, in whose viceroyalty the first knowledge of the medicinal qualities of the bark was communicated to Europe, he should have called it *Chinchona* and not *Cinchona*, for that nobleman's name was "*Conde de Chinchon.*"

VIII. *Some Account of Albinus.*

To the EDITOR of the LITERARY JOURNAL.

SIR,

To give satisfactory accounts of those men "who have contributed to the rearing of that fair fabric of science, which does so much honour to human nature," is, in my judgment, one of the most meritorious parts of the plan of the Literary Journal. It cannot but prove the more gratifying to the generality of your readers, as it will doubtless introduce them to an acquaintance with many illustrious foreigners, whose literary merits are but very imperfectly recorded in the biographical compilations which have hitherto been published in this country. Bernhard Siegfried Albinus, the greatest physiologist of our age, being among the number of those eminent literary characters I am here alluding to, the following account of that truly great man will probably be deemed worthy of a place in your Journal.

He was born at Francfort upon Oder, in 1697, received an excellent education, and in 1702, followed his father to Leyden, where the latter obtained a professorship of physic. He studied Greek and Latin under Sommers and Gronovius, philosophy under Bernard and Sangward, and physic under Rau and Boerhaave; but botany and natural history soon became the favourite objects of his scientific pursuits. His assiduity and zeal endeared him so much to the celebrated Professor Rau, that he performed no difficult chirurgical operation, but in the presence of Albinus. In the year 1718, the latter proceeded to Paris, and became the zealous pupil of Duverney, Vaillant, and Jussieu. At the death of Professor Rau, which took place the same year, he was, with the unanimous approbation of the whole faculty, chosen Professor of Physiology, Surgery and Anatomy, at the age of twenty-two. On entering upon this office, he delivered an elegant and elaborate speech on the true method of examining into the structure of the human body, soon after applied himself to arrange and class Rau's collection of anatomical preparations, and published a description thereof, under the title "Index suppellectilis Rauii." His next publication was the classical work, "De Ossibus;" and shortly after he edited, jointly with Boerhaave, the works of Vesalius and Fallopius. In 1726, he was chosen rector, and 1731, actuary of the university of Leyden. He made a collection of anatomical preparations, equalled by few, and excelled by none; published in 1734 his "Myology;" 1736 a description of *Ladmiral's* plates; and edited, in 1737, his celebrated "Icones ossium foetus." In 1744, he published a set of observations explanatory

of *Eustache's* tables, which was soon followed by his own tables of the muscles, bones, and chyliferous vessels of the human body, and closed his physiological career by his masterly work, intitled, "Annotationes Academicae." He died in 1770, after having raised the study of the structure of the human frame to a degree of perfection unattained by former physiologists, nor as yet surpassed by any who have followed him. His anatomical preparations exhibit the parts with unrivalled exactness, and with the strictest conformity to the living state; the least deviation from nature was with him a sufficient ground for rejection. His mode of conducting anatomical demonstrations, and delivering lectures on the structure of the human body, should be imitated by the anatomists of all countries. The learned author of the "Museum Anatomicum Academiæ Lugduno-Batavae" says of him, that he exhibited the various parts of the human frame in such a manner—"*ut ne delicatissimis quidem Spectatoribus horrorem inculerent.*"

O. P.

IX.

To the EDITOR of the LITERARY JOURNAL.

SIR,

Permit me to make a few additions to the account of the late Chevalier Borda, in the sixth Number of your interesting miscellany.

De la Lande published in his "*Connoissance des temps*," of 1775, Borda's method of ascertaining the longitude, and the celebrity he acquired abroad dates only from that time. But in 1771, he had already deservedly obtained a distinguished reputation in France, by his two memoirs on the resistance of fluids, inserted in the Transactions of the late Royal Academy of Sciences at Paris, for the year 1763, p. 358, and 1767, p. 495.

The observations, which he was ordered to make on board the Flora, and in several roads and ports of Europe, Africa and America, assisted by Verdun de la Crenne, and Pingré, were chiefly intended to ascertain the merits of some prominent nautical instruments in finding the longitude and latitude at sea. These instruments were our octant, and sextant, the time-pieces of *Berthoud*, *Leroy*, *Arsandaux*, and *Biesta*, the megameter of *Charnieres*, the telescope of the Abbé *Rochon*, and *Fyot's* "Chaise Marine." The result of the experiments made with these instruments, in 1771 and 1772, by Borda and his fellow voyagers, was first communicated to the public in the Transactions of the above Academy for the year 1773, p. 258. The papers, I have mentioned, are, I think, the only ones published under his name in the "Histoire et Memoires" of the late Royal Academy of Sciences at Paris, of which he was chosen a member in 1785.

O. P.

X. *To Correspondents.*

We thank *Scrutator* for his remarks on our general view of physiology. We did not assert that plants have *no perceptible heat*, which would have been absurd: the word *heat* (Literary Journal, p. 153, l. 29.) is a typographical error for *heart*, as must be obvious to every reader. It follows from the experiments of John Hunter, Bonnet, Solome, &c. that the temperature of trees (which alone have been tried) has a tendency to equability; in cold weather it is higher, in hot weather lower, than that of the atmosphere; but that this equability depends upon an internal power in vegetables to generate heat, and not on their conducting power, has not been demonstrated. The discussion would have been foreign to our general view, into which things perfectly well ascertained could alone be admitted.

We stated our reasons for thinking that plants have no muscular fibres, nor do we think that their irritability is a proof that they have. Let Scrutator observe that the difference between him and ourselves consists merely in a difference of opinion respecting the meaning which ought to be applied to the word *muscle*.

Scrutator blames us for not going more into detail respecting *respiration*, &c. The remark is somewhat singular. Our express intention was to *avoid* detail, and to give general views. He might have equally blamed us for not transcribing the whole of Linnæus's *Systema Naturæ* into our first Number, as for not giving a complete system of chemistry in our third. Or he may still with the same propriety ridicule the Literary Journal, because it is not as large as the Encyclopedie Methodique. Little as we have said about respiration, we fear that we have nearly exhausted the whole stock of physiological knowledge on the subject. We detailed our opinions, which however we always submit with deference to the opinions of others. *Ut potero explicabo: nec tamen ut Pythius Apollo, certa ut sint et fixa quæ dixerim; sed ut homunculus probabilia conjecturâ sequens.*

Consiliarius is informed, that the chemist of Vienna has long ago retracted his opinion respecting the sameness of tellurium and antimony. But if he had not, the *assertion* of no anonymous writer is entitled to be put in competition with the *experiments* of Klaproth.

We are pleased to hear that Sir Joseph Banks was sufficiently recovered from his severe attack of the gout, to resume the Chair of the Royal Society on Thursday last, at which meeting the Earl of Glendower was balloted for, and admitted a Fellow. Dr. Raine, and Mr. Dawson Turner, were also admitted Fellows. The abstract of Dr. Herschell's paper upon telescopes communicated at the two preceding meetings was read. The different effects of these instruments at different times, Dr. H. by many observations, has found to proceed from the difference between the temperature of the atmosphere, and the temperature of the various parts of the telescope. Thus a telescope should not be brought from a warm room into a cold atmosphere, nor the contrary. An unsettled atmosphere, as immediately after the setting in of a frost, or the beginning of a thaw, is unfavourable to telescopic observation. Air very dry, and high winds, though the sky be perfectly clear, are also unfavourable. Moist air is fittest for observation, and therefore low and marshy ground, and the vicinity of rivers and lakes are not unsuitable places for the erection of observatories.

The first part of a Paper from Professor Davy, of the Royal Institution was read, containing the results of a series of experiments on the properties of astringent vegetables used in tanning. The object of these experiments is to point out a method of expediting the common process

of tanning, by separating such of the component parts of these vegetables as are destitute of the tanning principle, and stand in the way of its operation. By following this new method, hides may be tanned in the short space of a few days, which in the ordinary process have hitherto required fifteen months.

The Antiquarian Society is still occupied in reading the House Book of Queen Elizabeth—it is by no means so interesting as the Berkeley House Book.

A foreigner of considerable rank, attended the Meetings of the Antiquarian and Royal Societies on Thursday last, Don Clementi, a Spaniard, who is about to explore the interior of Africa; he proposes to penetrate further than Mungo Park, and to visit, if possible, the famous city of Tombuctoo. He is every way qualified for this arduous undertaking—being a man of great intelligence and activity, and furnished with all the requisite information. He excites considerable interest in the learned world. He intends to set out in a few days.

LITERATURE.

BIOGRAPHY.

Some Account of Laharpe.

Jean François Laharpe, equally known for critical, oratorical and poetical talents, was born in Paris, in 1740, and received his education in the university of that metropolis. Being endowed with fine natural talents, and happening to fall under the tutorship of some of the best professors at that time in the university, his juvenile studies were crowned with extraordinary success, and his attainments very early bespoke an additional ornament to the literature of the age.

We do not conceive that Mr. Fontaines has been guilty of any hyperbole, who in his short speech on Mr. Laharpe's funeral, has stated that *he was seated on the pinnacle of literary fame at the age of* 25. Since it is known that, as early as the year 1759, (at the age of 20) he had published his *Essai sur l'Heroide en general* (Essay on Heroids;) and then (in the year 1760) his two heroids—*Cato* to *Cæsar*, and *Hannibal* to *Flaminius*. It is equally known, that in the year 1762, he had written several Lyric poems, of which his *Philosophe des Alpes* was accounted the best, an ode which had been crowned by the French Academy; and in 1764, that he published two other heroids—*Montezuma* to *Cortes*; and *Elizabeth of France* to *Don Carlos*. Most likely Mr. Fontaines alludes to the dramatic reputation of Mr. Laharpe, and, in this case, his statement is exact; as in 1764 he published his celebrated tragedy, *Le Comte de Warwick*.

The public opinion was soon formed in favour of the young author; and his composition was deemed eminent for correctness and elegance of style—a merit, according to his rival Palissot, *so much the higher, as it had already become scarce*. He met, on the other side, with a severe criticism for having misrepresented, and in some measure degraded, the eminent character of Margaret of Anjou, and for making his hero die in battle in defence of the duke of York, when he really died fighting against this prince, and in favour of the house of Lancaster. Poetic licence, it was thought, whatever latitude might be allowed to it, could never be suffered to contradict the most notorious facts in modern history.

The subsequent tragedies of Mr. Laharpe were far from meeting with equal success; and this repeated disappointment was, in the opinion of his antagonists, the great motive which induced him to withdraw from the stage, and devote himself entirely to critical pursuits, which he thought to be his own element. In fact, from the year 1767 to 1780, he wrote his *Eulogium of Charles V. King of France*, *The Advantages of Peace*, *The Eulogium of Henry IV.*, *The Twelve Cæsars*, translated from the Latin of Suetonius, with notes and reflexions, *The Influence of Talents on Society and Happiness*, *The Eulogia of Fenelon*, of *Racine*, of *Catinat*, and lastly of *Voltaire*. But in this very interval (from 1767 to 1781) he published his tragedies *Menzikoff*, *the Barmecides*, and *Philoctete*, the last of which met almost with equal success with the Comte de Warwick.

The uncommon merit, however, of his *Melania*, or *The Nun*, a drama in 3 acts, published in 1770, evinced that Mr. Laharpe possessed talents better fitted for the inferior drama than for the elevation of tragedy. The subject of this piece, it is known, is a young woman compelled by paternal authority to sacrifice her lover, to take the religious veil, and to put an end to her life with poison. It is generally thought that of all Mr. Laharpe's compositions this displays the greatest purity and elegance of diction; although, with respect to the structure of the drama, some objections were started against the chain and the probability of the events.

Much about this time Mr. Laharpe became a writer in the *Mercure de France*, and this he has regularly continued to be all the remainder of his life. In 1780 he made the abridgment of the celebrated Mr. Prevost's *collection of travels*, which he published in 21 vols. 8vo. This performance drew upon him some bitter sarcasms from the Abbé de Fontenay, then editor of the *Literary advertisements* of Paris. *We are astonished*, says that journalist, *that such an eminent and unrivalled genius as Mr.* Laharpe *should degrade himself so low as to become a compiler*.

Several other tragedies, dramas, and fugitive pieces issued from our author's pen from the year 1781 to 1789, which may be seen in the collection of his works, and which do not seem to require a peculiar mention in this article: we observe however that he had become, in this interval, a member of the French Academy, and professor of belles-lettres in the newly established Lycæum in Paris.

From his connections with Voltaire and the encyclopedists, Mr. Laharpe had already been accounted an adept in that audacious philosophy which infected France in the last generation. Accordingly, at the beginning of the revolution, he professed himself an advocate for the new order of things; and most likely he continued in the same principles till the downfall of royalty, and till he himself fell a prey to the terrorism of Robespierre. We know, from the report of Grégoire to the National Convention, that he was imprisoned from Nov. 1793 to August 1794; and the writer of this article, when in Paris, was informed that this confinement was the cause of Mr.

Laharpe's conversion; and that not a little was contributed to this change by the bishop of St. Brieux who happened to be his fellow prisoner.

It is well known that Mr. Laharpe soon after proved one of the greatest champions of the attempted counter-revolution; and from the latter part of the year 1791 he devoted almost his whole time to royalist publications. His dissertation *On the war declared by the Republican tyranny against good sense and morals*, his *Fanaticism of the revolutionary language*, his *Confutation of Helvetius*, and his journal *Le memorial*, which he edited conjointly with his friend Fontaines, are too well known to the generality of our readers, to need a peculiar description in this place. It is also well known we presume, that this *memorial* involved Laharpe in the directorial proscription of the 4th September 1797, that he narrowly escaped being transported to Cayenne, and that it was a twelvemonth before he was restored to his station in Paris.

We have already mentioned that Mr. Laharpe was a professor of literature in the Lycæum. The lectures he had delivered in it, during many years, were collected and properly arranged by him, and soon after published under the title of *Lycæum* or *course of Literature*, in 12 vols. 8vo. The work, as the public already expected, proved worthy of its author, and was soon celebrated as the best historical system of literature which had appeared on the continent. This Lycæum, according to a declaration of Mr. Laharpe himself, was soon to be followed by an appendix, containing the *history of the philosophy of the 18th century, in 3 vols. 8vo.* and we sincerely hope that this important performance may not be lost, or impaired by the death of the author.

The Memorial was published in 6 vols. 8vo. and, together with all Mr. Laharpe's smaller works, has passed through several editions. He died on 21st January last, in the 69th year of his age.

Some Account of C. F. St. Lambert.

Charles François de Saint Lambert, formerly a member of the French Academy, was born in Nancy, in 1717, of a family pretty well known among the provincial nobility of Lorrain; and early in life he entered into the army. We cannot give any particular information, respecting either his attainments in his military capacity, or his improvement in literature during the period of his youth; as no notice of these particulars has yet appeared in France or other countries. This era being past, we can state without danger of mistake, that his steps in the literary career were rather slow and most likely incommensurate with the activity of his genius; for his first poetical work—*Les Fêtes de l'Amour et de l'Hymen*, a theatrical performance, was, to our best recollection, published about the year 1760, when he was already turned of forty years of age.

His poem entitled—*Les quatres parties du jour*, appeared in 1764, and soon ranked him among the greatest poets of his age. The composition was acknowledged to possess novelty in the descriptions, interest in the details, and elegance in the style; although, on the other side, it was charged with coldness, want of unity, and monotonous episodes.

His next, and justly celebrated, poetical performance —*Les Saisons*, which was published in 1769, raised him to the highest degree of reputation. It was generally admitted that he exhibited here a large share of ingenuity and invention, by introducing pastoral poetry into a composition of a different sort, making it still preserve its native simplicity, and yet associate naturally with more elevated subjects. The beautiful descriptions of the renewal of nature in spring, of the rich landscapes of summer, and of the pleasant gifts of autumn, together with the episode of Lisa, and that of two lovers at the foot of a tomb, were deemed to possess the sublime and beautiful of Lyric Poetry, without losing the simplicity and tenderness of the eclogue. An additional merit was discovered, with regard to this elegant work, in the motive of the author; as his professed design was to inspire the great proprietors of land with an inclination to live on their manors, and contribute to the happiness of the cultivators.

In 1772, he published his *Fables Orientales*, which did little either to increase or to diminish his poetical fame: and many years after he produced his *Consolation de la Vieillesse*, a proof that his talents had suffered no diminution from age or infirmity.

The last publication of Saint Lambert is a philosophical work in prose. It appeared in 1798, in three vols. 8vo. under the title of *Catechisme Universel*. It was intended to exhibit a system of morals grounded on human nature; and the favourite object of the author was to confute the doctrine of a moral sense, which has been supported by many eminent metaphysicians, ever since the writings of Shaftesbury and of Hutcheson. This work was justly denominated by some French critics, alluding to the age of the author, *Le soir d'un beau jour* (the evening of a beautiful day!)

Saint Lambert died on the 20th of January last, in the 85th year of his age.

WARTONIANA.

In order to supply in some small degree the defect of personal knowledge expressed by the biographer of the late poet laureate, and to stimulate others who were intimately acquainted with him to contribute their assistance, a person who enjoyed some share of his friendship during the last years of his life, is induced to throw out a few unconnected reflections and observations on a man whom he shall never cease to esteem and admire.

Though the circumstance is not noticed by Mr. Mant, it is well known that Mr. Warton was, in his younger days or rather middle age, for a considerable space of time, curate of Woodstock, where his easy wit and good humour rendered him universally acceptable; and though his pulpit oratory does not appear ever to have entitled him to particular notice, many are still alive who speak of him with more regard and affection than of any person who ever officiated there. The rector, Mr. Holloway, though certainly not a man of genius, was a man after his own heart, as far as convivial and social habits were concerned; and Saturday, Sunday, and part of Monday were generally spent at Woodstock, in the most agreeable manner.

No man knew better how to unbend than Warton. Indeed to those who were unacquainted with his studious pursuits and high attainments, he would have appeared totally destitute of intellectual energy. He seemed to delight in the society of women and children with whom he could talk nonsense, or to associate with men in general who were harmless *bon-vivants*, wags, or punsters. His presence never laid a restraint on innocent hilarity, which he was always ready to promote; nor did his conversation daunt the advances of conscious inferiority. Like other men of prompt wit and vigorous mind, he would sometimes say a severe, but never said a malicious thing. Presuming ignorance and unblushing vice might have reason to fear his retort, but virtue and modesty found him gentle and playful as a lamb.

(To be continued.)

REMARKS ON THE COMMENTATORS OF SHAKSPEARE.

THE MERRY WIVES OF WINDSOR.

ACT I. *Scene I.*

She speaks small like a woman. "When female "characters were performed by boys, to speak small "like a woman, must have been a valuable qualifica-"tion." HOLT WHITE.

Had these words been spoken by the Poet *in propriâ personâ*, on the other side of the scenes, from the actor who played Anne Page, the remark would have been just; but it does not appear that it can have any possible relation to the character of Anne Page herself.

Yet I live like a poor gentleman born. "As great a "fool as the Poet has made Slender, it appears by "his boasting of his wealth, his breeding and his "courage, that he knew how to win a woman. This "is a fine instance of Shakspeare's knowledge of na-"ture."

Is it a proof of Shakspeare's knowledge of nature, to make a character so near absolute ideotism as to be hardly a proper object of the drama, have a deep insight into the disposition of women? Of this, however, Shakspeare is perfectly acquitted, for he has not put one word into the mouth of Slender, but what must make him perfectly ridiculous to any woman who was not as great a fool as himself.

ACT I. *Scene IV.*

A little wee face. This word, familiar to every child, affords matter of serious investigation to Messrs. Collins and Ritson!

ACT II. *Scene I.*

You wot of. "To wot is to know——obsolete." STEEVENS.!!!

My desires had instance and argument to recommend them. "Instance is example." JOHNSON. It has seldom any other meaning; but this is, I think, an exception; it seems here to mean perseverance.

ACT II. *Scene III.*

My heart of elder. "It should be remembered "that the elder has no heart. I suppose this expres-"sion was made use of in opposition to the common "one, heart of oak." STEEVENS.

The last part of this note is just; but when did the critic learn that trees were distinguished by having or not having hearts? Heart is used metaphorically for the middle of the wood, which in the oak is the hardest part of the timber, and in the elder is only a pith.

ACT III. *Scene I.*

Pittee-ward or *Pitty-wary.* As there is no place of this name, or any thing like it, either in or near Windsor, I fear this will always remain inexplicable. The bold alteration, adopted in this edition, of *City-ward*, i. e. towards London, cannot, I think, be right, as the scene is at Windsor. If it had been in Westminster it had been very plausible. London, as the metropolis in general, is never called κατ' ἐξοχὴν, the city; that term being solely appropriated to the incorporate part, as distinguished from Westminster and the suburbs.

ACT III. *Scene IV.*

Cut and long tail. We have at some length the various opinions of Messrs. Steevens and Reed, Sir John Hawkins, and Sir William Blackstone on this phrase. I wish they had taken this opportunity of giving us a few remarks on *tag rag* and *bob-tail.*

ACT IV. *Scene I.*

Herne's Oak. Some have supposed this to have been a tree (cut down a few years since) in the little park, nearly a mile from the castle. But the tree which the keepers shew for Herne's Oak is also in the little park, not much above 100 yards from the castle, in the midst of a row of elms obviously above a century its juniors. It is in a state of decay, and might have well been an old tree in the time of Shakspeare. I do not affirm that this *is* the tree, but the other could not be the tree, as Page proposes to hide in the castle ditch till they see the lights of the fairies, and they are near enough to seize Falstaff before he rises from the ground.

ACT IV. *Scene V.*

Paid. "To pay in our author's time signified to "beat, so in Henry IV. Part I. 'Seven of the eleven "I paid.'" MALONE.

That pay often had, and still has the signification of *beat*, is very true; but the illustration is an unlucky one, as in the passage cited it signifies to kill: for Poins says, 'Pray God you have not murdered some of them.' Falstaff replies, 'Nay that is past praying for; two I am sure I have paid; two rogues in buckram suits.' And the passage quoted by Mr. Malone is an account of the same circumstance, with the addition of five men more in buckram.

ACT V. *Scene V.*

Ignorance itself is plummet o'er me. Without citing any of the *learned* notes of the other critics, I shall only give the very sensible one of the editor, Mr. NICHOLS. "Dr. Johnson's note renders this passage "perfectly intelligible, all those which follow it only "serve to shew how agreeably learned critics can "blunder."

In the concluding note on this play, Mr. Dance displays much critical sagacity on the title of Sir being given to priests as well as knights. I think there can be no doubt of its happening in consequence of their being batchelors of arts, who in the buttery books of the universities are still called Domini. That the appellation was general, appears from what

Viola says in Twelfth Night. 'I am one that *had* 'rather go with Sir Priest than Sir Knight.' By the way, this shews that I *had*, for I *would*, is a barbarism coeval with Shakspeare.

To the EDITOR of the LITERARY JOURNAL.

SIR,

I perfectly coincide in opinion with your Correspondent H. that Shakspeare's "pionied and twilled fields," are fields worked and tilled, but cannot subscribe to his etymological observations on the words "pionied" and "twilled."

The former is doubtless derived from the French "*pionniers*," but this word never meant *foot-soldiers;* these were called *pietons* or *fantassins*. Workmen collected from the neighbourhood of a camp, or route of an army, to make or mend roads, cast up entrenchments, and perform the like manual labour, were formerly and are still called by the French *pionniers*, probably from the French *pioche*, a *pickaxe*, the principal tool used by workmen, employed on that service. That the term *pionnier* is derived from *pion* appears doubtful. The Italians call our pawns *pedone* or *pedine*, and the Spanish and Portuguese *peones;* and yet pioneers are termed by the former *guastatori*, and by the latter *gastadores*. From this mode of formation of analogous terms in kindred languages, I would infer, that the French did not form the term *pionniers* from *pion*.

Johnson's opinion, that our *toil* is derived from the Dutch *thuylen*, appears to me incorrect. The Dutch *tuil*, whim, fancy, chiefly employed in the trite expression *zijnen tuil uittuilen*, to indulge one's fancy, contrasts, in point of sense, so strikingly with our *toil*, as to preclude, in my judgment, all affinity of derivation. A Dutch term, spelt as Johnson's pretended *radix*, has no existence, nor does any other *Germanic* language possess radical words, likely to be the roots of the English *twill, till, toil*. The Swedes and Danes have the preposition *til*, of which they make frequent use in the formation of compound terms, as *tilbede* to adore, *tilbringa* to carry, to pass, but no consonant verbs or nouns. The German word *Thal-weg* (not *Thall-weg*) cited by your correspondent, has not the least relation to the English terms in question. It means neither more nor less than our nautical term "*fair-way*," the middle or navigable part of a river, and is restricted to the *Rhine* and *Main;* on the *Vistula* and other large German rivers, it is called *Fahrwasser*.

The English verbs *to twill* or *till*, I presume with deference, "fetch their being" from the French *tuile, tuillier*. Tile-making supposes ground broken in common with tilling, and the similarity of sound or pronunciation is of no small weight in etymological deductions. As to our terms *toil*, I apprehend, a London merchant, whose hard lot it is frequently to *toil* through the complicate maze of our custom-house business, will feel strongly inclined to derive it from the Dutch word *tol*, customs. Making some allowance for the *licentia chronologica* of their derivation. Mr. H. will probably agree with me in opinion, that it answers full as well as that from the French *toile*.

O. P.

EPIGRAMS *on the device of a tooth-drawer in Crown-court Soho, whose name appears in the window in teeth, that is, the teeth are so placed as to form the letters of his name.*

Dentes Loquuntur.

Non omnes morimur, vivunt post funera verba,
Et dens eloquitur, vox tamen ipsa silet.

T. C.

Λαλεῖ Θδοντουργὸς.

Οὐποθ' ἅπας θνήσκω, ζωεῖ μετὰ κῆρα λαλῆσις,
Εἶπαν ἄνευ γλώσσης οὔνομ' ὀδόντες ἐμόν.

Not every part of tyrant death's the prey,—
Tho' still's the tongue, the name the teeth can say.

ANOTHER.

Vengeance on every part not death shall wreak,—
Tho' silent is the tongue, the teeth can speak.

ANOTHER.

Not death to every part extinction brings,—
Tho' mute's the tongue, from teeth expression springs.

S. W.

Our determination to preserve a strict impartiality, will ever make us ready to insert such letters as the following; and, as it is in defence of a Lady, *we insert it without a comment.*

To the EDITOR of the LITERARY JOURNAL.

SIR,

I had written with more pleasure to myself than I now can, before I saw your 4th Number. I there observe remarks on Mrs. MACAULAY, on which I cannot and ought not to be silent. I have not had the pleasure of reading Miss HAYES's *Female Biography*. I therefore cannot judge of what is there said of her *person*. I was not myself acquainted with Mrs. MACAULAY till the end of the year 1777. She was then not young: but elegance, genius, and dignity, distinguished her figure: and her countenance was, and continued to be, of a highly pleasing and superior style of expression. She spent several weeks here before she visited AMERICA. Her conversation was easy and agreeable; replete with various and most important information. On her *political* sentiments I should be unjust to her memory, and should degrade myself, were I to offer an apology. With regard to MILTON, and her sentiments of him, whether the *Anecdote* of your anonymous correspondent be correct or not, it is, I believe, true that she respected him much more as a *Politician*, as a *Patriot*, and as a most eloquent and intrepid defender, by his immortal *prose*, of the RIGHTS of his COUNTRY and of SOCIETY, than as a *poet*. I will own that I do not think this great and admirable woman had much fondness for *poetry*. But for myself, who have an enthusiastic love of it, and who think that no poet ever has excelled MILTON, I do not hesitate to declare the same preference which she declared. The praise of GENIUS, though in his prose also genius is transcendant, cannot rival the praise of disinterested and exalted VIRTUE. And he who, with the taste and ear, the poetic habitudes, and exquisite sensibility of MILTON, could quit this safe and enchanting path for the paths of difficulty and peril, and could prefer to encounter

assured obloquy and every human ill in discharge of his conscience, to the enjoyment of glory, ease and pleasure united, appears to me worthy, pre-eminently worthy, of universal and perpetual admiration. Such was MILTON! and Mrs. MACAULAY GRAHAM, with a soul of like energies, could not be insensible to the excellence of such a character.

With respect to the insinuation on her silence during her *widowhood*, thus much will suffice: she had written much; but the *American* war was most unfavourable, more so than any thing except the late French war, to all publications in this country which had any reference to general and liberal politics. It was therefore necessary that there should be a long pause between her historical writings and the *publication* of them.

Her *historical letters* were however written during her widowhood.

And I have reason to think she had been collecting, and perhaps writing, much on that part of our history from EDWARD I. to JAMES I: and that she had latterly been forming materials for an HISTORY of the AMERICAN WAR. She certainly did intend to have written a *History* of *England* which should connect itself with her great work, and comprize the period I have mentioned. I do earnestly hope that Mr. GRAHAM will not suffer, if she left any MSS. that they should be lost to posterity. He defended her memory with a just and becoming zeal from an attack made some time after her death: and if this which I have now repelled reaches his eye, I assure myself that he will not overpass it. I am yours,

CAPEL LOFFT.

LITERARY INTELLIGENCE.

A translation has just been executed in France, in a very superior manner, of the *Adventures of Sappho, the Poetess of Mitylene*, a Romance which has had great success in Italy, and which is said to abound with refined and ingenious ideas, and the most enchanting images and descriptions. So far as we know, the book has never made its way into this country. It is the production of Count Veri of Milan, already known by his *Roman Nights*, a work which many people admire for its taste and delicacy. This gentleman is the brother of the Count Veri who published several works on Political Economy, and *a Treatise on Pleasure and Pain.*

No satisfactory account of Perú having as yet been published either in the Spanish or any other language, it gives us much satisfaction to have it in our power to acquaint our readers, that the celebrated Spanish botanists Don Hipólito Ruiz, and Don Josef Pavon have prepared for the press their travels in that country, where they resided upwards of nine years. They contain faithful accounts of all the parts of Perú which they have traversed, descriptions of the falls of Tequendama and Champtanha, of the stupendous cataract of San Mateo; of the rivers Huasahuasi, Chanchamayo, &c. the heights of Carpis, Achapatuman, &c. and circumstantial information of the customs, manners and trade of the inhabitants, and of all the productions of the animal, mineral, and vegetable kingdom, which have fallen under their observation during their long residence in Perú.

We have received from Spain a new edition of *Gumilla's* historical and geographical account of the banks of the river Oronoco, &c. revised and corrected by the Reverend Ignacio Obregón. As the cession of the island of *Trinidad* to this country is likely to render the trade on that immense river an object of great national importance, we shall give an analysis of Gumilla's account in one of our next Numbers.

MANNERS.

IN our last Journal, we offered some remarks on the history, nature and decline of Masquerades in this country, as a public amusement. We are now to consider another amusement, which, although usually ranked among private amusements, has in fact no characteristic of privacy, and no terms of exclusion which are not, we fear, too frequently suspended, in favour of that irresistible charm, *an overflow*. We allude to the ROUT, a non-descript entertainment peculiar to this country, and, as far as we have been able to learn, very imperfectly imitated in any other.

To some the ROUT will appear a recent invention; but this mistake arises from the *kind* of notice taken of routs in certain newspapers, a species of information which is not perhaps above five or six years old. The thing itself, however, is not of very ancient standing. It appears to have been so imperfectly known when Dr. Johnson published his Dictionary, that he has not admitted *this* meaning of the word. He defines *rout* to be "a clamorous multitude: a rabble: a tumultuous crowd." And his authorities are from Spenser, Shakspeare, Bacon, Milton, and others, who, whatever their genius or acquirements, were permitted to depart this life in ignorance of a rout. Nor has the word been adopted into the more recent editions of that celebrated work, nor has Mr. Mason given it in his late Supplement to Dr. Johnson's Dictionary, while he has favoured his readers with many words that seem not quite so proper for genteel language. The only Dictionary in which ROUT is to be found, is that of Dr. Ash, published in 1775, a work which very unaccountably has been neglected by the public, although it contains more words than any other. This lexicographer defines ROUT to be "An irregular kind of assembly among great people at their own houses." In this definition, it must be confessed, there is some information given, and some suppressed. We know by this, that it is a kind of assembly, and an irregular kind of assembly, but in what respects it differs from regular assemblies, the Doctor is silent. It is also stated to be among "great people," but the precise limits of this greatness are not laid down, and we have lived to hear of routs among those whom our author, in 1775, would have probably set down as "little people."

At what time the word ROUT began to be used in the sense we now employ it, neither research nor recollection has yet informed us. It must, however, have been previous to the year just mentioned. Before that period, what we call a Rout, was a DRUM and sometimes a HURRICANE, and fortunately for our historical zeal, we are enabled to trace the DRUM above half a century back, and nearly, as it is supposed, to its origin. More fortunately still, we are enabled to give an account of the amusement from an author of that time, whose authority will not be disputed in such matters, the facetious Henry Fielding,

who in his inimitable novel, Tom Jones, Book xvii. ch. 6, thus instructs his posterity:

"A DRUM, is an Assembly of well dressed persons of both sexes, most of whom play at cards, and the rest do nothing at all: while the mistress of the house performs the part of the Landlady at an Inn, and like the Landlady of an Inn prides herself in the number of her guests, though she doth not always, like her, get any thing by it."

Whoever has had the honour of being present at one of the assemblies we now treat of, must at once perceive that this is a correct account of a Rout. Why the latter word was substituted for Drum, or Drum for Hurricane, are questions which cannot now be answered. But it is a striking proof of the modesty of those whom Dr. Ash calls the "great people" that in all amusements of their own contrivance, they select names which, according to the usual acceptation, are at variance with established prejudices, and indeed with the natural law of self-preservation; and as this instance of humility cannot be denied, why should it not be proclaimed?

Before the year 1749, when Fielding published his work, we have not been able to discover any entertainment that bears a resemblance to the Rout. If it did exist before that time, it may have lurked under the form of *tempest*, or *tornado*, or been swallowed up in an *earthquake*. ASSEMBLIES, so frequently mentioned by prior writers, were chiefly for the purposes of dancing, and not unlike those now customary, not only in the metropolis, but in every town where there is what may be called "a genteel neighbourhood," capable of building a "genteel assembly room," and wise enough, if the scheme does not succeed, to let it for "a methodist meeting."

But although the rout may thus be proved to have existed above half a century, there can be no doubt that it has partaken of the improving genius of the times. We have read in former days of two hundred persons being present at one rout. This of course must have been in the infancy of the undertaking, or probably before houses were so built as to be entirely converted into a suite of rooms for publick days. Few ladies now would take pride in a rout of two hundred; but from that to five hundred "and all beyond" is certainly worthy of all the honours which newspaper-historians can bestow; and it is the accuracy of description, and correctness of enumeration, and the classical taste displayed by those gentlemen in painting the glories of variegated lamps, and illustrative pastry, which has given an *eclat* to modern routs, and induces persons who live in the remote parts of the kingdom to suppose them a new amusement, because they never read of such before, and never could suppose that a paper professedly established for political, commercial, or literary intelligence, should for three months in the year be devoted to a species of information from which no rational being can derive the smallest particle of instruction, and which from being a repetition of the same cant terms about "festoons," "coloured lamps," "chalked floors," "pyramids of pastry," "tasteful evergreens," "early cherries," &c. &c. loses the little portion of attractive curiosity it originally possessed.

When the dimensions of the largest suites of rooms appropriated to routs, are compared with the number of persons who are said to be present, a cautious man will be ready to doubt the veracity of the accounts he reads, or to dread very fatal consequences from the excessive pressure and confinement. But such notions proceed on a mistake which the historians of routs seem not very anxious to explain. The truth is, that although five hundred persons "of the first distinction" are present, they are not all present at one time. During the whole evening, or rather night, they are making their entrances and exits in parties, some not staying longer than to shew the lady of the mansion that they have honoured her invitation, and then repairing to keep another engagement, perhaps of the same kind, but where some superior attraction may detain them longer. Notwithstanding this ebb and flow, we would not be thought to insinuate that at no one time is the company more numerous than the house will hold. We can better sympathize with that which dignifies a rout than to reduce it to the unmolested conveniences of a private party, or to deceive our readers, by asserting that it resembles the domestic satisfaction of which they partake in their little circles. On the contrary, the most fashionable routs are so wisely contrived, that there is always such a degree of inconvenience, heat, pressure, and symptoms of suffocation as if, were they imposed by law, would be accounted intolerable, and would perhaps excite a rebellion. Some have compared these oppressions to the distresses of the English prisoners in the dungeon at Calcutta, and some to what used to be the situation of the negroes in an African ship: these may be exaggerations; but as the quantity of ladies who faint away, the number of dresses torn while the owners are squeezing through the rooms to reach their carriages, the number of carriages and footmen's legs broken, are circumstances related with vivid elegance of narration, and seem to constitute all that a rout is worth living for, the suspicion is, that the constitutions of the "great people" are so far stronger than those of the "little" that they can bear certain distresses with more patience, and can bear vicissitudes of climate, and revolutions of night and day, which would utterly unfit the others for their ordinary employments.

Why, as Fielding has remarked, the pride of numbers should be the chief pride of a rout, we are unable to explain, and have made many inquiries to no purpose. The laws of fashion are a system of precedents, but they have no preambles like the laws of the land, giving the *rationale*, the reasons and causes why they are enacted. We are not, however, inclined to speak harshly on the subject, nor to treat with contempt an institution so honoured as the Rout. It may have its advantages which we are not able to discover from want of penetration, or which perhaps may be industriously concealed to render them less common. One purpose may be, to shew in these seditious times that *mobs* may assemble for the most harmless purposes, and depart in as much regularity as their numbers and the places where they meet will admit; and it is certain, that an assembly of five hundred persons of "the vulgar," could not reasonably be expected to meet together unless for the purposes of mischief.

But whatever the original object of routs was, the example is fast descending among those whom our lexicographers would not probably consider as "great people." We were not long since honoured with a card to a rout given in a house of very moderate size, not one room exceeding fifteen feet square, in which, however, about an hundred and fifty ladies and gentlemen were *inclosed*. The heat and pressure were soon intolerable, and if such imitations of routs are common, we can only wish that the human body were more capable of accommodating itself to it appointed shell, or that the walls of houses were made of elastic materials that would yield to the requisite expansion of their contents. But although neither of these be possible in the present imperfect state of all human things, it must be mentioned as some consolation to those who wish to ape the routs of their superiors, that, as far as inconvenience and a total deprivation of the comforts of good air and locomotion are circumstances of the enviable kind, they are of all people best enabled to rival ladies of fashion, by the smallness of their houses, and the narrowness of their streets. R. S.

POLITICS.

ON THE CLIMATE OF IRELAND.

An opinion has long prevailed, that the climate of Ireland is less salubrious than that of England. To detect the origin of this opinion would not be difficult. My object is to prove it utterly erroneous: or rather, by the aid of a few strong facts, to place the salubrity of the climate of Ireland far beyond the confines of doubt.

When the greater part of that island was covered with almost impenetrable woods, and the deep rich soil which pervades it, in various directions, lay in a state of nature, undrained, unditched, and unexposed by the plough, I confess it might not have been altogether unwarrantable to suspect that its climate was somewhat less favourable to health than that of England. But that it really was so, has never to my knowledge, been established by a sufficiency of general facts. Be that, however, as it may, the face of the country has undergone a complete change since the middle of the seventeenth century. Thick woods no longer impede the current of the air, and intercept and retain the moisture wafted by the western winds from the Atlantic Ocean; nor are the rich pastures any longer destitute of necessary drains and ditches, or in their former state of nature.

The extensive turf-bogs of Ireland, which have also been hastily enumerated amongst the concurrent causes of the supposed comparative insalubrity of its climate, have experienced a very great, and many of the inhabitants will I apprehend be disposed to add, a very lamentable diminution since the period abovementioned. Were they, however, even more extensive than formerly, its climate, positively, would not thereby be rendered less healthful than at present. Turf-bogs have often been improperly confounded with marshes and fens, from which, in their effects, they are specifically different, as those who live in the neighbourhood of either can testify. The latter, proportionably much more frequent and extensive in England than in Ireland, are well known to emit putrid effluvia or miasmita, and consequently to generate diseases. The former contain no substance whatsoever in an actual state of putrescence. On the contrary they have been found to possess qualities of an antiseptic nature. And it is a fact, that the inhabitants of those counties which surround and comprise the great bog of Allan, are as free from peculiar distempers, enjoy as vigorous constitutions, are as long-lived and as well formed, if not more so, than any of the other inhabitants of Ireland.

Much has been said on the humidity of the atmosphere of that country; and inferences have thence been drawn to the disadvantage of the salubrity of its climate. For my part, I have never been able to perceive any very great difference in point of moisture between the atmospheres of England and Ireland. But suppose it were proved, by a series of correct and correspondent observations, that the latter was much more humid than the former; it certainly will not follow, of course, that its climate is less healthful; it being a fact, which does not admit of dispute, that the common people of Ireland enjoy better health during the prevalence of the moist winds which blow from the ocean, than that of the dry winds which blow from the continent: the causes of which have, I think, been already sufficiently explained.(A)

Hitherto I have been speaking rather negatively. I shall now speak positively of the climate of Ireland, and venture to affirm that it not only confessedly surpasses almost all others in mildness and equability of temperature, being more exempt even than England from intensity of heat and cold, but that in point of general salubrity it may vie with the most favoured, as well beyond, as within the same parallels of latitude. By observations made, as Sir William Petty tells us,(B) in the month of October, 1676, it appeared that the rain which fell in Dublin, during that month, compared with that which fell in London, was as 20 to 19; and that the windiness of the same month was at Dublin 20, and at London only 17. Many subsequent observations, made in different parts of England and Ireland, furnish nearly the same conclusions. Several sanction a persuasion that, with regard to the agitation of the air, there is still a greater difference between the two islands. Now I apprehend it will not be disputed, that, however dry the atmosphere, the more the air approaches to a state of stagnation, the more unfavourable must it prove to the human constitution; and consequently, that, in making a comparative estimate of the salubrity of two countries, we are authorised to pronounce that the most healthful, in which, *cæteris paribus*, the air is most agitated. In fact, with respect to Ireland, it is notorious that the bad effects which might be expected to ensue from the humidity of its atmosphere are either entirely precluded or countervailed by the beneficial ones which flow from the great agitation of its air. Moist air generally impairs the elasticity of the solids, and induces lax and phlegmatic constitutions: effects

(A) See an ingenious Memoir on the climate of Ireland written by the Reverend Mr. Hamilton, and published amongst the papers of the Royal Irish Academy.

(B) Political Anatomy of Ireland, p. 335.

which certainly are much more rare in Ireland than in almost any other country in Europe. From agues and dropsies, which are likewise caused by the moisture of the air, the people of Ireland are as free as those who can boast of a drier climate.

That there is an extraordinary proportion of oxygen in the atmosphere of Ireland seems by no means improbable. And to this perhaps may be attributed that exuberance of animal spirits for which the natives of that country have always been remarkable. Certain it is, that those who travel through England and Ireland will generally feel themselves more animated, and even more invigorated in the latter than in the former: a fact which, I think, amounts to a proof of the more vivifying quality of its air, however many may have kindly ascribed it to the incessant mirth of the Irish. But consigning the management of these proofs to writers of another class, I shall hasten to establish the salubrity of the climate of Ireland by others of a more obvious, simple and satisfactory nature.

There cannot, I conceive, be a better method of ascertaining whether the climate of any country be healthful or the reverse, than to inquire, whether the natives be exempt from endemic or national diseases; whether they be long lived; and whether they be endowed with strength and agility: for if they be so, we certainly cannot consider ourselves at liberty to entertain unfavourable opinions respecting the salubrity of its climate. That Ireland exhibits these indications of a good climate, no man who is acquainted with that country, will attempt to deny.

The Irish evidently are utter strangers to all the various diseases and personal deformities produced in other countries, by intense heat, intense cold, impure water, vitiated air, or excessive moisture. They are subject to no endemic malady whatsoever. And as for epidemic complaints, generally borne from the Continent on the wings of the east-wind, they seem to be rather less frequent, less pervasive, and less fatal amongst the inhabitants of Ireland than amongst those of England. Nor are the former more subject than their neighbours to consumptive, nervous, bilious or scrofulous complaints, or obstructions of any kind; (most of which however are as frequently the effects of intemperance, indolence and luxury, as of climate) nor less supplied with the means of their removal; there being in almost every county several mineral springs varying in strength and specific virtues, and adapted to the cure of these and other disorders (c).

The natives of Ireland may certainly be said to be long-lived, as the labouring country poor, who subsist in four or five and twenty counties out of thirty-two, entirely on potatoes and sour milk or water, live, for the most part, where spirituous liquors are not used *to excess*, to seventy years, and work at that age, very many to fourscore, and several to one hundred: and it is but reasonable to suppose, that if the food of this laborious class of men were more nutritive and substantial, they would exceed those ages. From the other classes, whose easy circumstances may induce intemperance and indolence, no fair conclusion respecting longevity can be deduced. We may, however, observe, that those amongst them who live in the country are rather longer-lived than the class below them.

In their persons the Irish are particularly happy. Those who happen to be born equally above poverty and below the means of enervating luxury, are, generally speaking, as accurately formed for strength and agility as it is possible for men to be. Indeed, in the union of these corporeal qualities they excel almost all other European nations. Mr. A. Young, and Dr. Adam Smith seem disposed to ascribe this advantage to their subsisting on potatoes. The former gentleman says, "When I see the people of a country with well-formed vigorous bodies, and their cottages swarming with children; when I see the men athletic, and the women beautiful, I know not how to believe them subsisting on unwholesome food."(d) The latter, speaking of potatoes, says, "The chairmen porters and coal-heavers of London, and those unfortunate women who live by prostitution, the strongest men and the most beautiful women perhaps in the British dominions, are said to be, the greatest part of them, from the lowest class of people in Ireland, who are generally fed with this root. No food can afford a more decisive proof of its nourishing quality, or of its being peculiarly suitable to the human constitution."(e) It is, however, well known that the natives of Ireland (not to depreciate that truly valuable root) were at least as robust and active before as since its cultivation in that country. And it is a fact of general notoriety, that those amongst them who subsist partly on flesh and partly on potatoes, display, in general, much greater bodily vigour and symmetry, than those who subsist on potatoes alone. It is, therefore, to their *climate*, not to their food, that the Irish are indebted for their personal perfections. Thus much for the three ordinary indications of a good climate.

Another proof of the mildness and salubrity of the climate of Ireland may, according to some, be drawn from the brute creation. "Horses, cattle and sheep," as Mr. Hamilton remarks, "arrive in Ireland, at a degree of perfection unattainable in other countries without infinite expence and trouble."(f) The hunters, the roadsters, the mastiffs, the far-famed wolf-dogs and the game-cocks of Ireland, certainly stand almost unrivalled for the various qualities which we wish to find united, or endeavour, by breeding, to unite in these animals.

Before I dismiss the subject of these lines, I must notice two facts connected therewith. One is, that owing, as is reasonable to suppose, to certain peculiarities in the atmosphere of Ireland, no venomous animals whatsoever are generated in that country, nor are noxious animals of any description, especially those which injure the fruits of the earth, near so common there as elsewhere. The other is, that no country in the world is more exempt, few, if any, so exempt from physical calamities. Not to mention those which are peculiar to tropical climates and other distant latitudes, the shock of an earthquake has never yet been felt in Ireland; nor is lightning so frequent or so destructive

(c) See descriptions of forty-two of the mineral springs of Ireland, in the 23d Volume of the Encyclopædia Britannica.

(d) Tour, Vol. ii. p. 2, p. 32. (e) Wealth of Nations, vol. i. p. 103.
(f) Memoir on the climate of Ireland.

there, as even in England. Many summers pass without a thunder-storm; and not one thunder-storm in fifty proves fatal either to man or beast.

In short, there appear to be the most ample grounds for affirming that no known country upon the face of the earth is, *upon the whole*, better circumstanced than Ireland, for a uniform enjoyment of health, vigour and spirits, from the cradle to the grave; that there is none wherein the life of man is less exposed to danger from the elements or from the brute creation; and few in which life may be longer enjoyed.

VIATOR.

The Constitution of Switzerland.

We shall endeavour, in as few words as possible, to convey to our readers some idea of the new constitution of government which has been given by Bonaparte to Switzerland. It is what is called a federal government. That is to say, the country being divided into a number of districts, or cantons, is not governed by one system of laws and magistracy, which extends to the whole, but each canton has a separate legislature and magistracy for itself; and then the whole of these cantons are united together and subject to certain laws which extend to them all.

The government of the different cantons is composed in the following manner. Each canton is divided into a certain number of districts. And every Swiss who has resided a year in the canton, who is enrolled in the militia, who is twenty years of age if married, or thirty if not married, and possesses property to a certain amount, is entitled to act as a citizen. The sovereign power is lodged in a grand council, composed of a number of members, varying from 50 to 150 according to the magnitude of the canton. This council makes the laws, nominates the general officers, or magistrates of the canton, and watches over the execution of the laws. Out of this grand council is formed a small council, consisting of a certain number of the members of the grand council. The business of this council is to carry the laws into effect, to dispose of the force armed for the maintenance of public order, to nominate the officers of the districts, to propose such laws as it judges necessary, and to give an account of the different branches of the administration. A court, called a tribunal of appeal, composed of a certain number of the members of the grand council, executes the judicative power in the last resort, both in civil and criminal matters. There are inferior courts of law, which are regulated by particular prescriptions.

The members of these different courts or councils are elected in the following manner. To form the grand council, each of the inferior divisions into which the inhabitants are distributed elects out of itself one member, who takes his seat directly: it elects, besides, three or four candidates in the other divisions to which it does not belong; and out of these candidates, chosen by all the divisions, a certain number are drawn by lot, and added to those directly chosen as members of the grand council, by each division. At the end of five years the members are chosen anew. To be elected a candidate it is necessary to be 30 years of age, and possessed of property to a certain amount; but to be elected a member direct it is only necessary to be 25 years of age, and possessed of property considerably less. The grand council is assembled a certain number of days every six months. The small council sits perpetually; it may prolong the sittings of the grand council, or call extraordinary ones. The members of the small council are chosen by the grand council; and they are renewed by third parts every two years, being re-eligible without limit.

In some of the cantons there are, besides, certain courts in each division, called municipal courts, which have the charge of the local police, the levying of taxes, and the provision for the poor. The members of this court are chosen by the assemblies of the citizens of the division; they must be 30 years of age, and have property to a certain amount, and they are renewed, like the small council, by thirds, every two years, and are re-eligible without limit.

In five of the smaller cantons very little alteration is made from their old form of government. The sovereignty of each part of the canton resides in the general assembly of the citizens, composed of all the inhabitants of 20 years of age. The different councils, and the different magistrates are all elected in the same manner, and execute the same functions, as formerly.

The most important of the rules which direct the union of these cantons, nineteen in number, are the following:

A general assembly is formed of deputies sent from all the cantons, and elected by the grand council. This assembly is called the Diet. Every canton sends to it a member, to whom may be added one or two counsellors, who supply his place in case of absence or sickness. These nineteen members have 25 votes in the deliberations, the deputies from the 6 largest cantons having each two votes. They cannot vote contrary to the instructions which they receive from their constituents. The Diet meets every year on the first of June, and the session cannot exceed the term of a month. All declarations of war, and treaties of peace or alliance, are made by the Diet; but the consent of three fourths of the cantons is necessary. It is this assembly which orders the contingent of troops established for each canton, names the general, and directs the measures necessary for the general safety of Switzerland. It nominates, and commissions ambassadors, regulates the disputes which arise between any of the cantons, gives permission to foreign governments to recruit in any of the cantons, and forms treaties of commerce.

The Diet meets by turns at Fribourg, Berne, Soleure, Bale, Zurich, and Lucerne. The cantons, to which these cities belong, become successively, what are called directorial cantons, during the year in which the Diet meets in the city which belongs to each. The directorial canton furnishes to the members of the Diet lodging, and a guard of honour, and the other expences attending the sittings. The burgomaster of that canton joins to his other title that of Landamman of Switzerland: he is the keeper of the seal of the Helvetic republic: he cannot leave the city: foreign ministers present to him their letters of credence or recall, and address, him on all concerns of their

mission: on the opening of the Diets he presents all the accounts which he has received respecting the interests of the confederate body: no canton can embody more than 500 of its militia without previously advertizing him: in cases of revolt in any of the cantons, or any other pressing occasion, he can march the troops of one canton into another, but only on the demand of the great or small council of that canton, and with the advice of the small council of the directorial canton: disputes between two of the cantons are referred to him during the vacations of the Diet.

The nineteen cantons of Switzerland guarantee reciprocally to one another, their constitution, their territory, their liberty, and independence, both against foreign powers, and against the usurpation of any particular canton or faction. The contingent of troops and money which may become necessary for the execution of this guarantee is to be furnished according to a fixed proportion. All privileges of places, of birth, of persons, or families are abolished. A free transportation of goods is established between the different cantons; and the citizens of one canton are permitted without any restriction to remove to another. The money coined in Switzerland is to have a uniform stamp and standard, which are to be determined by the Diet. All alliances of one canton with another, or with any foreign power are prohibited. The government, or legislative body of every canton, which violates a decree of the Diet, may be arraigned as rebellious before a court composed of the presidents of the criminal courts of all the other cantons. The cantons enjoy all the powers which have not been expressly transferred to the federal authority.

This constitution in its great principles, it is obvious, resembles the ancient government of Switzerland; and as far as alterations have been made it can hardly be denied that they are improvements. In this there is undoubtedly great appearance of moderation in the French government, who seem to have acted with this country upon the old Roman policy, as if the best means of securing the dependance of a conquered province was to leave it in possession of its laws and institutions. The truth is, that no form of government probably is more favourable to dependance than the federal, because no form creates a greater degree of external weakness. A council of nineteen members, who cannot vote but according to the instructions sent by their several cantons, of three fourths of which the consent is necessary for every measure, cannot conduct any transaction, either offensive or defensive, with great promptitude or vigour. The delays and discordancies which necessarily rise in this order of things must always place a country in a state of imbecility.

The new constitution, too, of the different cantons presents some very obvious defects. The grand council unites in itself the legislative, executive, and judicative powers. Its nature is nearly the same as if the house of commons in Great Britain had the power of forming a standing committee of its members to execute the functions of the king, and another committee to execute the functions of the judges. The powers and advantages granted to the members of these committees would necessarily render the house of commons a scene of continual intrigue to procure election to these places. The members would become corrupted to the last degree, and the business of the nation would be neglected. The comparative smallness of the objects in a canton of Switzerland must have a much weaker effect in stimulating cupidity and ambition, than the great and desirable objects in Britain, and of course the evils of intrigue will there appear in a much milder form than they would in this country. But still the foremost places even in a canton of Switzerland must have attractions for those who reside in it.

We have already delivered our opinion of the power added to France by the dependance upon it of this country. A small state, in the neighbourhood of great ones, must be dependant upon the strongest state in its neighbourhood. The mutual jealousy of the great states of Europe has hitherto preserved a nominal independance to several small states. But it has always been known, in the case of every war, with what state they were under the necessity of joining their arms. The Swiss indeed have long been treated with great forbearance; but that was only because the power of the two great states, between which they were placed, was so equal, that it never could be decided to which of the two they ought to belong. As soon as ever France became the strongest they fell to her. And they would, with equal necessity, have fallen to Austria, had she acquired the same ascendancy over France.

A literary work has been presented to the Diet of the Empire, on the new regulations become necessary in Germany with regard to the clergy. The author represents a new Concordat with the Pope as altogether useless. He speaks with warmth against the pecuniary retributions which the Bishops were accustomed to pay on the occasion of the confirmation which they received from the Sovereign Pontiff, and against the oath by which they bound themselves to remain faithful to the Holy See, and to defend it against all. He proposes to take from the Pope the right of granting benefices, of declaring nul the dispensations accorded by the court of Rome, and of suppressing the privileges of the clergy who should, for the future be subject only to their governments in every thing relating to civil concerns. The author further proposes to abolish the celibacy of the priests, and to prohibit the use of the Latin tongue in the service of the church.

This account is taken from a German paper; which, however, makes no mention of the reception which the Diet had given to the work in question.

A very spirited remonstrance of the clothiers and woollen manufacturers at Leyden, Delft, Bois-le-duc, Tilborg, Oosterwyk and Geldorp was lately presented to the Executive Government of the Batavian Republic against the temporary suspension of the edict of the 26th February, 1802, which prohibits the importation of foreign manufactures It is throughout worded in strong and nervous language, and concludes as follows:—"Should we be left destitute of that just and lawful support, which we still hope to obtain, we shall be compelled to demand that the laws, which forbid the exportation of manufacturing tools and implements, be repealed, in order that we may be enabled to sell our valuable tools and implements, which will then become altogether useless to us, to foreigners who know how to appreciate their value, or to transplant our manufactories into countries, where they daily experience the encouragement which they so highly deserve.

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NUMBER 10.] THURSDAY, MARCH 10, 1803.

PHYSICS.

I. *Of the newly discovered Planets.*

FOR many ages six planets only were known, and these, together with their secondaries, and with the sun and the comets, were supposed to constitute the whole of the solar system. Dr. Herschell's discovery of a new planet in 1782, which was altogether unexpected, altered and enlarged the views of astronomers. Bode, in consequence of the much greater increase of distance between the orbits of Mars and Jupiter than between the orbits of any other neighbouring planets, reckoning from the sun, was induced to conjecture that there existed a planet between Jupiter and Mars. This conjecture was apparently verified by Piazzi, an Italian astronomer, who discovered a new planet on the first of January 1801, nearly in the position assigned by Bode. To this planet he gave the name of Ceres Fernandea; but the greater number of astronomers have preferred the name of the discoverer, and therefore distinguish the planet by the appellation of *Piazzi*.

But on the 18th March 1802, the plausibility of Bode's theory was entirely destroyed by Olbers, a celebrated astronomer of Berlin, who discovered another new planet situated exceedingly near the former. To this planet he gave the name of Pallas, but other astronomers have preferred *Olbers*, the name of the discoverer.

Astronomers for some time past had been beginning to suspect, that unknown planetary bodies might still be concealed among telescopic stars, or those which can scarcely be seen with the naked eye. Struck with this notion, a number of German astronomers formed themselves into a body, assigning to each a portion of the heavens to examine, in order, if possible, to detect these unknown bodies. Dr. Olbers's discovery was the fruit of this association.

No sooner were the two new planets announced to Europe than astronomers set themselves with emulation to observe them, and calculate the elements of their orbits, &c. The following are the results which have been hitherto obtained.

1. The planet Piazzi appears as a star of the 8th magnitude. According to the observations and calculations of Dr. Herschell, its real size is exceedingly small, not exceeding 161.6 miles in diameter. This is much less than our moon. But the astronomers on the continent have made it much larger. According to them its apparent diameter subtends an angle of 1″, and its real diameter is 290 French leagues, or one tenth of the diameter of the earth. Its colour, according to the observations of Herschell, is ruddy, but not very deep. Its disk is ill defined. The inclination of its orbit is much greater than that of any of the planets formerly known, amounting to 10° 58′. This increases the breadth of the zodiac. It revolves round the sun in 4 years 7 months 9 days 20 hours 21 minutes. Its elements, as calculated by Burkart, are as follows:—

Annual motion 2°. 18° 13′ 18″.
Mean distance, 2.76755 or nearly 262900000 miles.
Eccentricity 0.078835.
Equation 9° 2′ 28″.
Inclination of its orbit 10° 58′.
Tropical revolution 1679.84 days.
Subreal revolution 1680.7 days.
Synodical revolution 456.85 days.

2. Olbers is still smaller than Piazzi. According to the observations of Herschell, its apparent diameter is only 0.15′, and its real diameter only 129 English miles at a medium. Its colour is of a dusky white, and its disk is not well defined. Its elements, as far as they have been calculated, are as follows:—

Mean distance from the sun 2.7699, or about 263100000 miles.
Revolution 1683 days.
Eccentricity 0.2468.
Inclination of its orbit 34° 38′.
Aphelion 10° 1° 12′.
Epoch 2° 1° 23′.
Node 5° 22° 27′.
Equation 28° 25.

The inclination of its orbit is no less than 34° 38. It removes of course to a very great distance from the ecliptic. This destroys all the notions hitherto entertained respecting the extent of the zodiac.

Dr. Herschell concludes from his observations, that these two celestial bodies cannot, with propriety, be placed among the number of planets. Their bulk is too small, and the inclination of their orbits too great. At the same time they differ from comets. He considers them therefore as a class of bodies intermediate between planets and comets, to which he has given the name of *asteroids*.

II. *Of the Stones supposed to fall from the Atmosphere.*

In a preceding number of the Literary Journal, we gave an account of these singular stones, and of the conjectures of philosophers respecting their origin. As the subject is of very considerable importance in a meteorological point of view, we shall notice at present several other conjectures which have been given to the public.

M. Patrin, well known by his geological travels in the north of Asia, has endeavoured to prove, that the stones in question did not fall from the atmosphere, but had been previously buried under the earth, and were brought into view by the action of thunder. But this hypothesis cannot stand the test of examination. It does not account for the sameness of the stones in all cases, and it is expressly contradicted by actual observation.

In the 45th volume of the Annales de Chimie, page 62, M. Salverte has proposed another hypothesis. According to him, in consequence of the decomposition of water which is constantly going on at the surface of the earth, immense quantities of hydrogen gas are continually rising into the atmosphere, and ascending to the higher regions of it. This gas is capable of dissolving metals. It carries along with it accordingly a portion of iron and nickel. During thunder storms this gas is kindled by electricity; the metals are deposited, reduced, melted, vitrified: hence the meteors and the formation of stones.—This hypothesis of Salverte is scarcely more satisfactory than the others. It does not account for the presence of magnesia and silica, nor does it explain why the stones are always composed of the same materials. Besides, the existence of hydrogen gas in the atmosphere has not been proved, far less that it forms a separate atmosphere, which is contrary to all experience: and it is well known that a little hydrogen mixed with a great portion of air cannot be fired by electricity.

III. *Method of rendering Sea Water capable of washing Linen.*

It is well known that sea water cannot be employed for washing clothes. It refuses to dissolve soap, and possesses the properties of hard water in perfection. This is a great disadvantage to seamen, whose allowance of fresh water is necessarily limited; and it prevents them from enjoying many of those comforts of cleanliness which contribute not a little to health. The method of removing this defect is exceedingly simple, and by no means expensive. It has been lately pointed out by Dr. Mitchell of New York,* and ought to be made as public as possible for the sake of our sailors.

It is well known that sea water owes its peculiar properties to several salts which it holds in solution. The most important of these are common salt, muriat of magnesia, sulphat of magnesia, and muriat of lime. The earthy salts exist in a small proportion compared to the common salt. It is to them that sea water owes its hardness. They decompose common soap, forming with it an earthy soap, insoluble in water, and encrusting the surface of the soap and the clothes like grease. Drop into sea water a solution of soda or potash, and it becomes milky in consequence of the decomposition of the earthy salts and the precipitation of the earths. This addition renders it soft and capable of washing. Its milkiness does no injury, and need not therefore be minded.

IV. *On Antimony.*

Antimony is one of the metals which are very much used in medicine. An exact knowledge of the oxides and salts which it is capable of forming is on that account very desirable. Mr. Thenart some time ago made a set of experiments on it, from which he concludes that it forms with oxygen no less than 6 oxides. But the manner in which he conducted his experiments rendered his conclusions somewhat doubtful, especially as several of his oxides differed from each other only by one per cent. of oxygen; a degree of precision scarcely attainable in similar researches. Mr. Proust, so celebrated for his ingenuity and precision, has lately turned his attention to the same subject, and he has obtained very different results. To him we are indebted for ascertaining the oxides which several of the other metals form, and for ascertaining the proportions of their component parts. He had therefore the advantage of much previous experience. According to him, antimony is capable of forming 2 oxides only. The first oxide is composed of

81.5 antimony.
18.5 oxygen.

The second of 77 antimony.
23 oxygen.

The first oxide constitutes the base of almost all the celebrated preparations of antimony.

V. *On Cutaneous Perspiration.*

It has been supposed, by some philosophers, that a permanently elastic fluid is constantly making its escape through the pores of the skin, as well as the vapour of water. But the experiments hitherto attempted are by no means sufficiently precise to decide the point. Cruikshank has shown that carbonic acid gas at least is formed by the action of the skin, and the same conclusions result from the experiments of Jarine. Ingenhoutz suspected that azotic gas is transmitted through the skin: but Priestley and Fontano could not perceive any such transmission. In the present state of the subject, the following fact, announced by M. Trousset,† is of some importance.

Happening to be near one of his patients, while in a warm bath, in the spring of 1800, he observed his whole skin covered with small air bubbles: he removed them by means of the hand, but they became again as numerous as ever in half an hour. The same phenomenon appeared every time the patient bathed. These air bubbles, collected and examined, proved to be azotic gas. M. Trousset tried the experiment on himself and several other persons, but could not perceive any such collection of air bubbles. At last, however, he met with another individual who exhibited the same thing every time he bathed. He supposes the same transpiration of gas to take place in every individual; but, in consequence of the want of strength in the transpiring organs, that the gas in most cases is prevented from escaping by the weight of the water.

VI. *On the Currents in the Ocean.*

In the *Studies of Nature*, first published by Bernardine de St. Pierre in 1784, that interesting but eccentric writer gave a number of curious facts respecting the currents of the ocean, from which it appeared that they were much more general and extensive than had been hitherto supposed. He suggested them as proper to carry information from one part of the world to the other. A letter corked up in a bottle is to be thrown into the sea, it will assume the direction of the currents, and be wafted to those regions to which they tend. He has lately published an account of four experiments made in this manner, all of which were attended with success.

* American Transactions, v. p. 139.

† Annales de Chimie, No. 133, p. 73.

1. The first was made by an English gentleman in 1786. Being at Cadiz on his way to the East Indies, and missing the opportunity of a vessel going to England, he enclosed a letter to his sister in a bottle, and committed it to the waves on the 17th of August. On the 9th of May 1787 it was picked up by a fisherman on the coast of Normandy near Aromanche two leagues out at sea. During the interval it was most likely carried to the West Indies and back again, if we believe St. Pierre.

2. The second letter was thrown into the sea on the 15th of June 1797, in north latitude 41° 22′, a little to the east of the meridian of Teneriff, by a young painter who lay under obligations to M. St. Pierre, and was addressed to St. Pierre himself. It was found on the 6th July, less than three weeks after its date by a soldier on the beach of Cape Prior, having made during the interval a voyage of 120 leagues. It was sent to St. Pierre by the French vice-consul at Ferrol.

3. The third letter was thrown into the sea 200 leagues to the north of the Isle of France, by a French captain on his way to India, and was found on the coast of the Cape of Good Hope, having made a voyage of more than nine hundred leagues.

4. The fourth letter was thrown into the sea on the 12th January 1802, by Le Bozec, captain of the Clarinde frigate, in north latitude 19° 21′ and 55° 30′ longitude west from Paris; it was found on the coast of Guadaloupe on the 20th March, having in about 2 months traversed 200 leagues of the ocean from north-east to south west.

These facts are of some importance, because they point out the direction, and even the velocity of the current by which the letters were wafted to their destination, and because they suggest to sailors a method of rendering their unhappy condition known to the world in case of shipwreck on uninhabited islands.

VII. *Method of preventing the premature Decay of Peach Trees. By* John Ellis.‡

The decay of Peach Trees, according to Mr. Ellis, is owing to a worm, which originates from a large fly, resembling the common wasp. This fly perforates the bark of the tree, and deposits its eggs. The perforation is usually made at the surface of the earth, and the worm, when hatched, as soon as it is able to move, descends into the earth. Its progress is extremely slow; it may be easily traced on the trees. If the egg has been deposited at too great a height on the tree, winter approaches before the worm can reach the ground, and all that are above ground after frost are killed.

Mr. Ellis's method of preventing the decay of the tree is founded upon the knowledge of the above facts. It is as follows:—In spring, when the blossoms are out, clear away the dirt so as to expose the root of the tree to the depth of three inches. Surround the tree with straw about three feet long, applied lengthwise, so that it may have a covering one inch thick, extending to the bottom of the hole, the butt-ends of the straw resting on the ground at the bottom. Bind this straw round the bottom with three bands, one near the top, one at the middle, and one at the surface of the earth, then fill up the hole with earth, and press it closely to the straw. When the white frosts appear, the tree should be uncovered, and remain so till spring.

By this process the fly is prevented from depositing its eggs within three feet of the root. If it places the egg above that height, the worm travels so slow that it cannot reach the ground before frost, and therefore is killed before it can injure the tree.

Mr. Ellis practised this method with a great number of peach trees, and they flourished remarkably for several years. He then discontinued it with about 20 of them. All those which were left without the straw declined, while the others remained as vigorous as ever.

‡ American Transactions, v. 325.

VIII. *Facts and Observations respecting the Air-pump Vapour Bath, in Gout, Rheumatism, Palsy, and other diseases. By* Ralph Bleghorough, *M. D. Member of the Royal College of Surgeons, London —Lackington, Allen, and Co.* 1803. *12mo. Pages* 141.

This little publication gives an account of the discovery, structure, and method of employing a machine to which the inventor has given the name of the *air-pump vapour bath*; it contains remarks upon the nature and cure of the diseases to which this machine is applicable, and cases of patients, labouring under these diseases, who have been cured or relieved by means of it.

The book is written with much perspicuity; and though little attention has been paid to the arrangement, yet the animation of the style and the great variety of matter which it contains render it extremely amusing; while the important effects, which Dr. Bleghorough affirms to have been produced by the air-pump vapour bath, entitle it to the attention of practitioners and the examination of the public.

The air-pump vapour bath was invented by Mr. Smith of Brighton, from an idea that it might be useful in sucking the poison out of wounds. It consists of a tinned copper cylinder, about 2 feet long and one foot in diameter, into which the arm or leg may be introduced. To its mouth is attached a strong bladder, which is to be tied round the arm or leg after it is introduced into the cylinder, by means of a roller, to prevent the external air from getting into the machine. The other end of the cylinder is closed, except two tubes with stop-cocks which are fixed in it. To the one is attached an exhausting syringe, by means of which the air may be pumped out of the cylinder; to the other is fitted the top of a small boiler, heated by a lamp, by means of which the machine may be filled with vapour. Diseased limbs are put into it, and exposed during a given time to the action of vapour at the proper temperature, and under different degrees of exhaustion, according to circumstances.

This machine has been found efficacious in removing paroxysms of gout, acute rheumatism, chronic rheumatism, palsy; in removing cutaneous diseases, curing ulcers, &c. Dr. Bleghorough proposes it as

likely to be useful in chilblains, leprosy, yaws, tetanus, amenorrhœa, and dropsy.

Perhaps, like most other new remedies, its virtues have been extolled a little too highly. This seems necessary. The hyperbolic praises of the advocates for new remedies are counterbalanced by the unjustly severe animadversions of their opponents; and the truth is usually found exactly in the middle between the two statements.

We shall not attempt any examination of Dr. Beddoes's theoretical opinions. His explanations are mostly given in the language of the Brownonians. Though we sometimes differ from him in opinion, we have always followed him in his explanations with much satisfaction.

IX. *Histoire Medicale de l'Armée d'Orient, par le Medecin en Chef*, R. Desgenettes, 1 *vol. in* 8vo. 1802.

This book contains several curious facts respecting the diseases of the French army in Egypt, and the method of curing these different diseases. The remarks of the author do not always agree with those of our physicians. But considerable information may be obtained by comparing the accounts of the physicians of the two nations.

When the plague broke out in the French army, before Jaffa, M. Desgenettes and his associates carefully concealed the nature of the disease from the soldiers, and this conduct, he says, was attended with considerable advantages. Indeed it is well known to physicians, that the state of mind in which their patients are is of as much consequence towards their cure as the medicines which are prescribed. Despondency in malignant diseases is peculiarly fatal, not only by its effect on the spirits, but because it prevents the unfortunate victims from using those means for recovery which might be attended with success.

Desgenettes even went farther than concealment. To convince the men that the disease was not of so malignant a nature as had been supposed, he opened a bubo of a man who lay ill of the plague, and inoculated himself with the matter near the anus, using no other precaution afterwards, than washing the puncture with soap and water.

At Gaza the plague attacked women and boys in preference to men of mature age. Death usually cut off the patient the fourth, fifth, or sixth day, after he had been seized with the disease. It was usual for convalescents to take the infection a second time, if they immediately attended on their sick comrades. Dead bodies, according to Desgenettes, did not communicate the infection, the smallest obstacles were sufficient to stop its progress. On one occasion a ditch dug before the camp was sufficient for that purpose.

The treatment of the French physicians consisted in giving emetics, in the use of coffee, with bark and camphor in large doses; of the mineral acids, blisters and all the remedies usual in violent putrid fevers. According to Desgenettes, when an emetic was administered the first or second day, the patient usually recovered. He deplores most pathetically the wretched state of the French military hospitals.

Notwithstanding the plague, he affirms that only 4157 men died in the French army during the first 30 months of their residence in Egypt, a much smaller number than dies in Europe in an army equally numerous. Hence he draws a favourable conclusion of the healthiness of the country.

X. *Society for encouraging national industry in France.*

This Society, in a meeting held in January last, proposed the following subjects for premiums.

1. For the fabrication of a wooden screw, 1500 francs.

2. For the purification of cold and hot short iron, 3000 francs.

3. For a method of making alum, equal to that of Rome, 1200 francs.

4. For determining by experiments the quantity of heat produced in the same circumstances, by the combustion of different kinds of wood, and by the same wood in different states, 1400 francs.

5. For determining by experiment the method of preserving seeds as long as possible capable of germinating, 500 francs.

6. For the improvement of wool and sheep; eight medals, value 100 francs each.

7. For the culture of the Swedish turnip in greatest quantity, 800 francs.

NOTICES.

The court gazette of Vienna contains the following article:—Among the experiments and discoveries in rural economy, which, on account of their utility, deserve to be published, we mark those of the Counsellor Holsmaistre, director of the estates and domains belonging to the Imperial family. He has on his grounds more than twenty-four thousand sheep of the Spanish breed. Having lost for some years a great many of them by the cutaneous disease to which these animals are subject, it occurred to him to make the experiment of inoculating them with the virus of the disease. The experiment has been performed successively upon 8000 lambs, and 2000 sheep; not one of them has died; and there are very few of them on whom the matter has not taken. To complete this proof, Mr. Holsmaistre has caused a second inoculation to be made upon 1000 of these animals, and has mixed them with other sheep infected with the disease. Not one of them took it a second time.

At the last exhibition of useful inventions at Paris, Mr. *Desquinemare* obtained a prize-medal for having discovered a method of rendering linen altogether impenetrable both to air and water. A variety of experiments having ascertained the great advantages to be derived from his discovery, a manufactory has been established at Paris, No. 1460, *Notre-Dame des Champs*, where air-tight and water-proof linen is prepared for bales, sacks, port-mantles and all sorts of covering, intended to preserve furs, cloth, wool, and similar articles, from being injured by water and air, as well as by vermin.

LITERATURE.

ITALIAN OPERA.

To the EDITOR of the LITERARY JOURNAL.

SIR,

IT has always been a matter of astonishment to me and to my intelligent friends, that, among so many more or less important topics of foreign literature which have been noticed in our daily or periodical publications, during the latter half of the last century, not a single rational and detailed account has ever been given of a branch of Italian poetry, which, even before that period, had been already naturalised in England, and become of considerable influence on our national manners and amusements. We possess an opera-house, in the opinion of the Italians themselves, the most magnificent and the best attended of any in foreign countries, and scarcely inferior to the establishments of the same kind in some of the capitals of Italy. We feel the enchanting power of music, we admire the eminent performers, we take concern about the persons acting in this amusement, and still we have never been satisfactorily informed of its peculiar and characteristic attributes. For want of such information, some pieces of criticism or of commendation have now and then appeared in our public papers, on the several particulars relative to the opera, which did not seem to be properly applicable to their respective objects: and many deficiencies have been occasionally ascribed to poets, composers, managers, and other persons, which, upon a more accurate enquiry, would have been attributed to the spectacle itself. I think that some historical and critical remarks on this subject, through the medium of your Miscellany, may be acceptable to the public, and have a tendency to establish in the minds of critics and philologists, a permanent and adequate principle for any future and occasional exertions of their judgment. For, if we can evince that the Italian opera labours under intrinsic and insurmountable difficulties; if we are once persuaded that the Italians, at any time have been duly sensible of its deficiencies, and appreciated it according to its just standard; and if we remain convinced of the manifold disadvantages, which constantly attend the persons who are its most conspicuous actors, we may then judge of the daily occurrences in this institution with the greatest accuracy, and perhaps avoid any peculiar disquisition on the several events which happen to be the immediate consequence of the primitive defects. A subject of this magnitude would certainly require a longer discussion than is generally allowed to the fugitive articles of periodical works. But I shall endeavour to confine myself within the usual limits of such performances, and notice those particulars only which are immediately conducive to my purpose.

I can, without any hesitation, state that the Italian opera, as far as it concerns the natural laws of taste, reason and good sense, is so intrinsically defective as to dispense from any occasional criticism on the several publications of the kind, as well as on all the circumstances by which they happen to be attended in this respect. And although this proposition may, in the first instance, appear too dogmatic to some readers, and perhaps occasion the sentiment of surprise to those among the votaries of the opera, who, constantly satisfied with the transient and agreeable sensation of the whole entertainment, never possessed the stimulus or tried the power of a cold analysis on the amazingly complex idea resulting from the great complication of poetry, music, ballets, and other fascinating objects, still I hope the proposition will be completely demonstrated in the following paragraphs; and, what I think more satisfactory, the demonstration will be in the greatest measure supported by the authority of the Italians themselves, naturally the most competent judges of their national pursuits.

Whatever the historians of Italian literature may have said on the primitive sketches of the opera, and the rude musical performances which were acted in Italy about the middle and towards the close of the 16th century, it is sufficient for the generality of well-informed people to be told that the first man who wrote some compositions of this kind, nearly in the same state as it has since remained, was Octavius Rinuccini of Florence: his first drama, entitled *Daphne*, with the music of James Peri, also of Florence, was acted in 1594; his *Euridice* in 1600, on the wedding day of Henry the Fourth of France, and the Tuscan princess Mary de Medicis; and his *Arianna* in 1608, on the marriage of Cosmo de Medicis of Tuscany, and then of Francis Gonzaga of Mantua. We have from the famous *Nicius Erithraeus* an incidental but detailed description of the enchanting and superb scenery which attended these representations. And this extraordinary magnificence in architecture, in painting, and in other heterogeneous elements of the amusement, was, from that very time, accounted as an insurmountable obstacle to the improvement of the opera; for, it was evident that the abettors of it rather wished to entertain the audience by the shew, the change and the variety of the accessory objects, than to carry this newly invented branch of poetry to some degree of perfection, and to convert it into an additional school for manners and taste. In short, poesy was degraded from its natural dignity, and considered in no better light than as an accidental support of the exhibition; all cares were exclusively bestowed on the remainder of the component parts, and the concordance and the unity of the whole was utterly destroyed.

The Italians, already sensible of this abuse, earnestly sought to explode it from their subsequent performances. An uncommon zeal was also exerted, towards the middle of the 17th century, to improve the poetical department of the opera; some academies were instituted about that time, by princes and other eminent individuals, to forward these pursuits; and considerable premiums were tendered to such authors as should produce a play worthy of the public attention. All this answered no purpose: the performances which appeared about that time were, without exception, inferior even to those of Rinuccini; the depravity of taste in other particulars became still greater; and little hopes were entertained of an improvement in all these things, during the remainder of the century.

The Buffa opera, which is coeval with the other,

and which, to the best of my recollection, was first exhibited in Venice about the year 1597, had no better auspices in its birth; as, besides all the above-mentioned irregularities which it had in common with the serious opera, it was also destitute of proper style and of grammatical propriety, in the composition. The Castilian and the Italian language, as well as the Bolognese, Bergamasque and Neapolitan patois were indiscriminately admitted into it; and the whole of this absurd and ridiculous complication was of such a nature as not even to permit a work of this description to be intelligible to the generality of readers in the several provinces of Italy.

It is curious to remark, that the performers, taking advantage of this theatrical disorder, soon endeavoured to attract the public attention in an exclusive manner, to erect themselves into an independent tribe, and to set the natural authority of poets and composers at defiance. This disorder, already great in itself, derived an additional weight from the overbearing insolence of the *castrati*, who, by that time, were brought on the stage; and as these anomalous beings have been always accounted of Italian origin, it may not be improper to observe in this place, that they had been employed in Spain much earlier than in Italy, and that we are indebted for this curious piece of information to the ingenious Spanish ex-jesuit the Abbé Arteaga, who, in his *revolutions of the musical stage*, has produced a bull of Sixtus V. to the papal nuncio in Spain, relative to the *castrati* then chaunting at church.

We have a picture of the manners of the *castrati* and of the generality of performers in Italy, during the latter half of the 17th century, in one of the satires of Salvator Rosa, celebrated all over the world as a capital painter, but not sufficiently known, on this side of the Alps, as an eminent satirist, and the Juvenal of modern Italy. The pride, the insolence, and the effrontery of this tribe, had almost exclusively captivated the bounties of kings and princes; they were the corrupters of manners, among the highest nobility of Rome, Venice, and other towns of Italy; they proved the most dangerous and powerful instruments of improper intrigues; they outrivalled in power even ministers and statesmen; and they had become proverbial for meanness, avarice impudence, debauchery, and vices of every kind. In short, their influence on theatrical performances became so great, that nothing was done in this line contrary to their wish and pleasure; and the poet, full as much as the composer, was subjected to their absolute and capricious dictatorship, upon any occasional exertion of his talents.

It was in the midst of all these disorders that a man arose who possessed competent abilities to correct some of them; but being unable to redress the whole, he was obliged to submit to, and thus seemed to sanction some by his authority. I allude to Zeno, whom I may justly call the Corneille of the opera. He deserves that title as being the first who exhibited on the stage those superior virtues and morals which may afford a scope to the descriptions of a dramatist. Patriotism, love of fame, tender affections, generous friendship, courage, beneficence, and such other eminent qualifications, were clothed by him in the happiest expressions. He was also the strenuous supporter of dramatic regularity; he understood and practised the poetical precepts handed to us, on this subject, by the ancients; and he gave some degree of interest and method even to the Buffa opera. Independently, however, of the already noticed abuses, which were, in a great measure, extrinsic to his compositions, he was also justly charged with having exalted the sentiment above its natural level; a defect of which the Italian musical stage has never since been cured. I have reason to think that he was himself duly conscious of this impropriety; and if the limits of this article allowed a longer detail on the subject, I would endeavour to prove that he could not do otherwise.

Metastasio was to Zeno what Racine had been to Corneille. Of this eminent poet, of his talents and performances, of his literary and domestic life, and of the system which he completed in the opera, I shall say nothing; as this has been already illustrated in many learned publications, and especially in the *Memoirs of Metastasio*, and in the *History of Music* by the ingenious Dr. Burney. I shall only remark, what is perhaps known but to few, that Metastasio was far from enjoying in Italy that unexceptionable fame which he obtained in the rest of Europe. He was charged with want of invention, with deficiency of judgment, with improbability of events, with anachronism of manners and customs, and with cold, pedantic, and displaced specimens of philosophical or theological declamation. Nor must I omit, what is likewise not generally known, that he was indebted for a great part of his success to the superior talents of that galaxy of unrivalled composers who flourished in his time—Scarlati, Vinci, Porpora, and to mention one name more, the immortal Pergolesi, the Raphael of Music! and it is almost superfluous to remark, that if Metastasio was said to have raised the opera to the highest degree of improvement, it was rationally understood that he had done towards the purpose whatever an establishment radically defective could possibly permit.

With some sense, however, of national pride, I am going to state, that even before the appearance of Metastasio, and in the very time of Zeno, the Italian opera was appreciated in its just value, in England. Not one of your readers, I presume, is uninformed that this entertainment, so naturally charming, notwithstanding its defects, and already adopted in all the principal countries of the continent, was introduced among us in the reign of Queen Anne, and that, soon after its introduction, it was subject to the masterly criticism of Addison, who exerted all his wit, humour, and inimitable graces to cover it with ridicule. Your readers may safely refer to the several numbers of the Spectator on the subject, in order to have a tolerably good account of the absurdities and contradictions inherent in the opera; and the only error which may be found in Addison's judgment is, perhaps, that he threw the blame of the insufficiency on the depraved taste of the nation which gave birth to the establishment. This immortal writer would, in all probability, have avoided this

error, if, conjointly with his eminent talents and truly classical learning, he had possessed more knowledge of the literary history of Italy. He would then have discovered that the Italians were convinced of the deficiency full as well as himself.

In fact, even forty years after the writings of Addison, and during the meridian blaze of Metastasio, the best critics in Italy still persisted in their rebellion against the theatrical system of the opera. And without naming any author of inferior note, I may refer your readers to the *Essay on the Opera* by the celebrated Algarotti. They will find in it a sober, rational, and methodical series of animadversions upon every branch, and on all the inferior particulars; and they will likewise perceive, that if the last mentioned writer is decidedly inferior to Addison, in taste, talents, and graces, he has over him the advantage of order, perspicuity, and precision.

As Metastasio's works were justly considered as the utmost effort of genius in this time, I am almost chargeable with tautology when I say that he had exhausted all the resources of dramatic poetry. And as the musical science, even during his latter days, had effected several revolutions; and as the intrigues of the performers, and the *mercantile* speculations of the managers had proportionally increased, it was in course that the drama itself should feel a greater acceleration in its decay, that every subsequent writer should be compelled to imitate what was naturally inimitable, that all compositions of this kind should be a motley exhibition, and very often a total disfiguration of Metastasio's writings, with a view of adapting them to the corresponding revolutions of taste in music, and that the opera should rapidly fall back into that state of disorder and confusion from which it had been raised by Zeno.

It is indeed no exaggeration to state that, during the last forty years, the opera, either serious or buffa, has been (as it still is, without any prospect of a better condition) in the utmost disorder and confusion to which a public establishment can be possibly obnoxious. It is a fact universally known in Italy, that as soon as a manager enters into office, he applies to some poet, and communicates to him the plan of his speculations: he declares how much he expects to gain from his management—how he must act towards all persons subservient to him—that the number of performers must be neither less than five nor more than seven—what method of poetry and music may be best adapted to each of them—that he consents to have any indifferent compositions, even if they are nothing better than a mutilation of old plays—and he solemnly concludes, that if the poet himself should happen to offer any thing really original, no reward will ever be given on this account. It is likewise known that these disorders would, in all probability, have occasioned a greater discredit to the Italian opera, if it had not been accidentally supported, within the same period, by the superior talents of Piccini, Paesiello, and others, whose enchanting compositions have constantly satisfied the public in such a manner as to divert its attention from every deficiency in the remaining parts of the entertainment.

In this state of things it appears to me that two questions naturally present themselves to our examination: 1. Whether we possess any power to correct the detailed inconveniencies either in things or in persons? 2. Whether we can expect to see the opera less defective among us than in its native land? No man of sense, I trust, will ever dare to decide these two questions in the affirmative. And when the contrary decision is admitted, a new question arises—What we may rationally expect from the adopted entertainment, and to what particulars relative to it we must confine our occasional criticism? The solution, I think, will be easily given by the mere recapitulation of the several historical and critical remarks contained in the preceding paragraphs:

I. No blame can be properly imputed to the poets; as they have neither freedom nor encouragement, nor indeed any stimulus whatsoever to attempt an original or remarkable performance. II. The architects cannot be any way responsible for those incongruities and contradictions of scenery which are the unavoidable result of the want of unity in the dramatic action. III. It is of no use to offer remarks on the manners of the several individuals immediately subservient to the stage, as their generic character has been, and most likely will be the same, in every generation. IV. Any rational criticism ought to be confined to the peculiar pursuits of the composers or to the powers of the performers; as these are the only two particulars which leave an undisputed field of exertions, and open a proportioned scope to their respective abilities.

In concluding the article, I will acknowledge with candour and satisfaction, that I have very often seen, in our papers, some strictures on the above particulars, exactly analogous to my ideas, and I should think, completely answering the public expectation. That you may generally follow this method on any future occurrences, and bestow no care on what it is not in your power to redress, is the most sincere wish of your

CONSTANT READER.

Voyage en Piémont, &c. Travels in Piedmont, containing a topographical, picturesque, statistical and historical account of the six Departments incorporated with France, &c. By J. B. I. Breton, &c. 1 *vol.* 8*vo. Paris,* 1803, *imported by* Gameau *and* Co.

Our readers will probably recollect the French *Senatus Consultum*, by which the Duchy of Piedmont was wrested from its lawful Sovereign, and incorporated with the French Republic, divided into the six departments of the Doria, Servia, Maresco, Tanaro, Po and Stura. The work before us contains an interesting description of these departments, which completes a collection of travels in all the departments of the French Republic, published in fourteen volumes or one hundred and eight numbers, the first eighty-nine of which are composed by Lavallée, and the rest by our author. They who are acquainted with his travels in Belgium, and the present French possessions on the left banks of the Rhine, will not sit down to this work with hopes of obtaining much correct statistical information, or meeting with elaborate results of deep historical research; they will expect an interesting sketch of the six departments he describes, and not

be disappointed. Our author traverses them in the order we have mentioned, touches slightly on the history of each department, draws a lively picture of its present state, and interweaves the topographical account with many ingenious remarks suggested by the objects which present themselves to his view. With equal truth and acuteness he delineates the critical situation in which Bonaparte was placed at the time when the Emperor of Germany concluded the highly impolitic armistice of Leoben; he exposes the absurd ideas entertained by the Aulic Council of War at Vienna with regard to the camp of reserve near Dijon, tells the devotees of the high-talking Ruler of the *great* nation, that the Reserve, and only the Reserve, repaired the check sustained by the defeated centre and wings of the republican army near Marengo; and exclaims—"On what events does the fate of empires sometimes depend!"

On the great variety of Italian dialects our author makes an observation, which we would recommend to the most serious consideration of all *inquisitive* travellers.

"To travel in Italy," says he, "in a pleasant manner, a knowledge of the language of the metropolis is fully sufficient. In genteel or fashionable societies the sweet '*favella dell' Arno*,' the Tuscan idiom, is generally spoken, and all good Italian works are written in that dialect. But such travellers as are desirous of studying the manners and customs of the people, and investigating the most minute particulars of the country, should be acquainted with the peculiar idioms of every province they traverse. For travelling in a manner truly useful in the peninsula, as well as the continent of Italy, it would be necessary to re-commence a course of lectures on language at every step and at every particular State."

The work is illustrated by six maps of the different departments, and eight etchings of the fort of Bard, the aqueduct of Biella, and other objects, which do not much credit to the artist.

The Passage of St. Gothard. By the Duchess of Devonshire.

This little Poem, of which some imperfect copies have long since appeared, is again called into notice by its publication in an authentic form, and embellished with all the superbest decorations of the typographic art.

This is the second instance which our duty has occasioned us to notice, of a female high in rank and famed for beauty, rising above the chilling influence of fashion, and becoming warm'd and animated by the fervor of genius.—The Poem opens with a farewell to Italy, which the authoress quitted in the month of August, and passed into Switzerland, over the mountain of St. Gothard.—The first stanza possesses very appropriate beauty of idea, and exquisite harmony of metre, and the word *Italy* is introduced with peculiar felicity of collocation—

"Ye plains where threefold harvests press the ground,
"Ye climes where genial gales incessant swell;
"Where art and nature shed profusely round
"Their rival wonders—*Italy*—farewell."

The first line of the 10th stanza is harsh.—

"Yet let not these rude paths be coldly trac'd,"

But the remaining three lines amply compensate for this trifling defect. Of the merits of the 18th stanza it is not easy to speak in terms of sufficient approbation, except that the rigid critic may object to an instance of alliteration, "*shelter share*."—In the following stanza, the phrase "*beauteous horror*" contains incompatible terms.—The address to the chapel

"Where TELL directed the avenging dart"—

derives peculiar effect from the indignant emotions which every generous and sympathising mind cannot but feel for the oppression which Switzerland now suffers; and in the last stanza, the feelings of the mother struggle for pre-eminence with the genius of the poetess.

"Hope of my life! dear children of my heart;
"That anxious heart, to each fond feeling true,
"To you still pants each pleasure to impart,
"And more—oh, transport! reach its home and you."

Such is this elegant little specimen of descriptive poetry.

An Italian translation and copious notes accompany the original.

The typography of this poem calls for particular examination, being advertised as a *chef d'œuvre* of the *Bulmerian Press*, undoubtedly *one* of those which has the most contributed to the present improved state of the art.

This splendid work, of which only 50 copies have been taken, is printed in large folio, and the size of the type (one of the principal indications of taste in printing) is judiciously chosen; we cannot say so much for its form; indeed there is a general defect of shape in the type of this house. The impression, a conspicuous beauty of the Bulmerian Press, is upon the whole extremely good; though we think it might have been better, had the paper been selected with more judgment. The ink is not equal to that of Mr. Bensley, who in this important particular is superior to all his brethren.

The Passage of the St. Gothard, however, affords a distinguished proof of the high state of perfection to which the art of printing has arrived in this country; but it will not drive to despair other candidates for fame—there being yet room for considerable improvement.

DRAMATIC CRITICISM.

A New Comedy, entitled, "John Bull, or, the Englishman's Fireside," was performed at Covent-garden theatre, on Saturday last, written by Mr. Colman.

This play opens with the shipwreck of an unknown person on the coast of Cornwall. As he is taking some refreshment, at the door of an ale-house, he is alarmed by the cry of a female in distress. He runs to her assistance, and finds a young woman attacked by a robber. He rescues her, and learns that she is the daughter of a respectable tradesman in Penzance, from whom she has just eloped, in consequence of her being seduced by the son of an opulent baronet in the neighbourhood, who had forsaken her to be married to a woman of quality and fortune, by order of his father. In the course of conversation, he learns, that this tradesman was the person who had, thirty years before, assisted him with the means of going to India, where he had acquired a large fortune.

He resolves to repair immediately to his benefactor, and try to reconcile him to his daughter, when he finds him involved in bankruptcy by the perfidy of a friend. He discovers himself to him, forces him to accept of ten thousand pounds which he had saved from the wreck, and effects a reconciliation between him and his daughter He now goes with the father to endeavour to persuade Sir Simon, the old baronet, to permit his son to fulfil his engagements, but in vain, till he discovers himself to be his elder brother, who, from a strong desire to go to sea, had formerly eloped from his father. The baronet with his title and fortune loses his pride also, and the piece concludes with the marriage of the young man and Mary Thornbury, the tradesman's daughter, whom he had seduced. This is the outline of the plot. As a subordinate character, a profligate man of fashion is introduced, who glories in his want of principle, and in the course of the action tries in vain to debauch the forsaken mistress of his friend, and succeeds in marrying his intended bride

The incidents produce much interest, and the language abounds with strokes of genuine comic humour, but it is more loaded with what are termed *sentiments* than any comedy we remember, since the ridicule of them in the School for Scandal. These chiefly consist in apologies for female frailty, and eulogies on the middle and lower orders of society, at the expence of the opulent and the noble, which were consequently received with rapturous applause by a large majority of the house.

On the whole, the play has claim to great merit, though we think it not equal to that excellent comedy, by the same author, The Heir at Law.

We here conclude our remarks for the present, though we may possibly resume them in a future Number, for the purpose of introducing some observations on the general character of modern comedy.

ORIGINAL POETRY.

ODE ON THE PAST.

Days of my youth! too quickly fled,
Visions of love and bliss, adieu!
How ill acquired the aching head,
And manhood's sorrowing heart, for you!
Ah! what avails, with hopeful eye,
The raptured Future to descry?
In kindness hid the dark unknown,
Be our's the pleasures past, since our's the Past alone.

Why lingers Recollection still,
O'er the fair scenes of lost delight;
What time, from yonder eastern hill,
Rose the mild sun of Being bright?
It is; though calmer reason turn
From wilds where Fancy's meteors burn,
She fondly gives the pensive tear
To joys by truth approved, and held by memory dear.

O come the forms by Feeling wrought,
And chace the soul's sad gloom away!
O come!—for years have only taught
How soon the seeds of bliss decay.
Lo! by the tempest, sternly rude,
Life's blooming promise all subdued;
And manhood's yet unwithering prime
Shrinks at the wintry blast of unrelenting Time.

If high ingenuous Honour charm;
If Beauty win thy fond esteem;
Warmth, prompt at friendship's call to arm;
And Woman, all that lovers dream:
Thy mind from bitterest anguish free,
If days unclouded thou would'st see;
Then, close thine eyes on youth's gay lawn,
While yet thy Eden bloom, while now thy morning dawn

Weak man! what means the wish to gain,
With wearied steps, fame's arduous steep?
Why madly trust the faithless main,
To grasp Profusion's glittering heap?
Even all that conquest still adorns
Is often but a crown of thorns;
Still, the proud standard that he rears
Is hailed by orphan cries, and drenched with widowed tears.

Shall lettered Glory's generous toils,
A brighter recompence bestow?
Ah! what are Learning's envied spoils,
But slight, and penury, and woe?
Deep to the winds poor Genius sighs,
And roves unseen, with tearful eyes;
Nor pitying friends his fate enquire,
Till, borne by misery down, unaided Worth expire!

Since honours, riches, genius, fail
To soothe and satisfy the mind;
I turn to that Elysian vale
Of loves and graces, yet behind!
There, Fancy all her scene arrays;
There, Nature at the heart-strings plays;
There, sweetly wild, the varied year;
There, Joy's extatic thrill, and April's cloudless tear.

Days of my youth! too quickly fled,
Visions of love and bliss, adieu!—
But ill exchanged the aching head,
And manhood's sorrowing heart, for you!
No more intent, with hopeful eye,
The rapturous Future to descry,
While kindly hid the dark unknown,
Mine be the pleasures past, for mine the Past alone!

***

IMITATION FROM THE SPANISH.

How fleet are the arrows in happiness dipt!
What moments of bliss are long ages of years!
But if in woe's current the mortal has sipt,
What an age a diminutive moment appears!'

EPIGRAM FROM MARTIAL.

"Alas! I'm thirty," said the withering Sue;
Indeed, sweet virgin, what you've said is true,
For thirty years I've heard you say,
"Alas! I'm thirty years to-day."

MORTIMER.

From the same principle of impartiality which made us insert Mr. Lofft's *letter respecting the Review of* Mrs. Hays's *Female Biography, we insert the answer of the Author of that Review; but we must now intimate to both, for the sake of our readers, that we think enough has been said on the subject.*

To the EDITOR of the LITERARY JOURNAL.

SIR,

I find that my observations on Mrs. Macaulay, in the critique on Mrs. Hays's Female Biography, have drawn forth a defence of that Lady from the pen of Mr. Lofft. What the personal attractions of Mrs. Macaulay may have been in the year 1777 I am no judge, as I never saw her since the year 1767, at which time she struck me exactly as I have stated in your former paper, and I was not at an age then to be very fastidious in my taste for female beauty. Differing as I do *toto cœlo* from Mr. Lofft in political sentiments, we certainly shall not concur in our opinion of Milton as a politician, except in one point: for surely he must join with me in reprobating his conduct, in accepting an office under "a tyrant who trampled on the laws and liberty of his country!"

Mr. Lofft says, that the historical letters of Mrs. Macaulay were written during her widowhood. As far as the internal evidence of style may be admitted, this would rather confirm than confute what I have suggested.

Though I differ from Mr. Lofft in public opinions, I have the highest respect for his private virtues as a man, and his abilities as a writer. And I honour him for his defence of what he thought an unfair attack on a deceased friend; and though I shall certainly not meet him on equal terms by announcing my name, if we continue our correspondence on this subject, yet I shall conduct it with all the liberality and candour due to his character and my own.

I am, yours,

Y——

NOTICES.

In a former Number we submitted to the public the very curious discovery made by Captain SQUIRE and his companions, of the Inscription on the base of Pompey's pillar. To establish the genuineness of it, and confirm the truth of the proposed emendation offered in Dr. RAINE's communication to the Society of Antiquaries, we have every reason to hope that the cast taken by the discoverers in sulphur will shortly arrive in England. The filling up of the chasm in the word ΠΟΛ....ΙΟΥ, with ΕΩ by no means corresponds with the vacancy, and as ΑΙΘΗ are not only consistent with it, but account for the name which the pillar has always borne, there can scarcely be a doubt on the subject.

The pillar, as erected by *Pompey* the Prefect, is thus happily restored to its founder.

In concluding the inscription with ΕΡΟΣΚΥΝΕΙ, Mr. Hayter's conjecture, we think less fortunate, from an apprehension not only that there is no authority for supposing the last line contained only one word; but also, if that were the fact, the language of inscriptions would require it to be ΑΝΑΘΗΚΕ. Of course, a proposition in that case must have begun the Inscription.*

It is stated in the periodical work of Kotzebue, published at Berlin, that the emperor of Russia has presented, by the hand of his Envoy at the court of Prussia, a ring of very great value, to Doctor Markel, for his work entitled *Wannem Vmanta*, the object of which is to attack the system of the feudal servitude. This prince, of whom we have so often to notice enlightened and patriotic acts, takes this means of expressing his sentiments respecting that wretched system which still oppresses the unhappy peasants of many parts of his dominions.

Tashé and Muller, booksellers at Giessen, in the Landgraviate of Hesse-Darmstadt, have published a choice and beautiful collection of the remaining works of Greek, poetesses, under the title—"*Selecta poetrianum graecarum carmina et fragmenta, edidit, earum vitas, et indices adjecit.* A. Schneider." It contains the poems of *Sappho*, *Erinna*, *Crcobulina*, *Corinna*, *Praxilla*, *Nossis*, *Myro*, *Anyta*, *Euridice*, *Hedyla*, *Irene* and *Theosebia*. With respect to the text, the author has followed the editions of *Brunk* and *Wolf*, and added to the commentaries of *Jacobs*, a great variety of explanatory notes, which do infinite credit to his profound erudition and critical taste.

Dr. *Athanarius Slajkowicz* has published at Ofen in Hungary, "Elements of Natural Science," written in the Servian language. To judge from the list of subscribers, the editor has experienced considerable encouragement in his meritorious undertaking, which unites the double advantage of combating superstition and promoting the perfection of the Servian tongue.

Mr. Arrowsmith's excellent map of the United States of North America has been lately republished at Paris by *Sardieu*, enlarged and improved after the most authentic information which he has been able to obtain. He has preserved the English Terminology, but left out *Chalmer's* notes, which, we are given to understand, have greatly obstructed the sale of Arrowsmith's map in the United States, on account of the political principles and conduct of the commentator.

Few of our readers are unacquainted with the credit assumed to themselves by the French anarchists from pretending to follow the doctrines of Raynal and Rousseau. But it is not generally known that Rousseau declined associating with the Encylopedists, and by his opposition to some of their doctrines drew upon himself their bitterest persecution. His answer to Mirabeau, when he wanted him to adopt the principles of the Economists, is remarkable. "Your economical system," he wrote to the marquis, "is admirable; I am afraid, however, that it tends to "countries very different from those to which you pretend "to be going; I may be mistaken, and you may confute, "but not persuade me." It is not generally known, too, that the author of the "History of the European settlements in the East and West Indies," sent to the Constituent Assembly a formal disavowal of their proceedings, and a recantation of every thing in his writings which might have any tendency to countenance them; and that he passed his days at Chaillot, near Paris, in extreme poverty and want, and breathed his last in that village, the 12th of March, 1795.

Mr. William Daniel has finished an excellent engraving from his picture of the Double Bridge, designed by Mr. Dance; which was in the last exhibition.

MANNERS.

IN speculating on the changes which have taken place within a few years in the manners of the middling classes of society in this country, although we evidently can trace a mixture of pride and œconomy, it is not easy to say in what proportion these ingredients have united. It has been generally thought that they can never meet without destroying each other; yet that some kind of junction has been effected is but too obvious, and it would be very beneficial

* See Literary Journal, No. 6, p. 175.

for the parties chiefly concerned, to investigate in what way a compromise has been negociated between principles so diametrically opposite, that the wisest of the ancient philosophers could probably never have foreseen the time when they should not only meet cordially in private, but even appear in public without a blush, and without exciting much surprize at the singularity of the coalition.

Much, however, of the changes of manners to which we now allude, and which respect domestic arrangements, has been brought about by an imitation, from principles of pride and economy, of that amusement of which we attempted some account in our last Journal. The ROUT, as soon as it began to be understood, seemed to present certain advantages of which no other domestic entertainment could boast, and although persons of distinction are above the consideration of such advantages, and certainly are not remarkable for diminishing the price of pleasure, or for starting amusements of the economical kind, those who *exist* by imitation, immediately discovered, upon strict calculation, that the ROUT, or something like the ROUT, is a more cheap mode of paying compliments to one's friends, and receiving and entertaining company, with "all that the season produces," than any other mode hitherto invented. It appeared to them to be taken from the practice of government in its provisions for the great exigencies of state, for the army and navy, and, fortified by such authority, there could be no harm, and surely no disgrace, to introduce into the commonwealth of fashion a mode of victualling by contract.

Hence it soon became the general custom that all parties should consist of more persons than the house could conveniently hold. The old law of restricting visitors to those who were relations or friends in the proper sense of the word, was, if not repealed, allowed to grow obsolete, and be followed only by some *quizzes* of the old school, probably retired from business, and who had no other object than to continue the tranquillity of their early life to their latter years. In lieu of this, the system of *acquaintance*, *genteel connexions*, and *sets* or *lists* was established. These acquaintances are generally persons for whom no great degree of respect is possible, or expected, but who are perhaps able to make returns in kind, and thus form a circle of parties, which revolves so often in the course of a season, that it is nearly as common for a tradesman's wife, as for a lady of quality, to inspect her "Royal Engagement Pocket Atlas," and declare with an air of triumph, made up principally of a pretty toss of the head, that "she will not have an open day for six weeks." This declaration also, in order to make the imitation more correct, and all the circumstances more uniform, is accompanied with expressions of great dislike for large parties and late hours; "that it puts *one* so out of order, turns *one's* "house out of the windows, deranges every thing so "that *one* cannot know what *one's* about for a week "after; that such crowded assemblies spoils *one's* "things, (and perhaps a lace veil three feet deep; "and in tatters is brought in evidence) that really so "much visiting knocks *one* up; but what can *one* do, "for all *one's* friends do the same, and Mrs. —— was "so importunate, that *one* could not refuse to go, and "Lady —— was so anxious, that not to go would "have been quite shocking, &c. &c."

In this manner, and with such cogent and unanswerable arguments, the *spirit* of the ROUT, and the genius of aggregation, has descended into common life, and perhaps at no period could a naturalist assert with so much justice as at the present, that "man is a gregarious animal," and no wit can repeat with more propriety the definition of the Essayist in the WORLD, that woman is "a creature formed for CROWDING, and for being CROWDED." It was certainly an important discovery, that while tumultuous parties were the most fashionable, they were also attended with the least expence, and a new axiom was with singular felicity adopted, somewhat altered indeed from an old one, "the *more*, the *cheaper*." The ready reckoner showed, that what will do for ten will do for fourteen, and what will do for fourteen will do for twenty, and so on *ad infinitum*, i. e. as many as the *set* consists of; that the trouble of providing for a small party is the same as the trouble of providing for a crowd; and if all these calculations are insufficient to demonstrate the propriety of throwing a house into confusion for a few hours entertainment, there yet remains one argument, to which no refutation can be offered, namely, that "every body does the same."

On this part of our subject we are reminded by an obliging and intelligent correspondent, of a passage in Mrs. West's late novel, "The Infidel Father," which may be introduced here with propriety. "We will now return," says this acute observer of modern manners, "to the Company, and seat them in proper order round the Supper Tables. Good eating is confessedly congenial with John Bull's constitution; and all preceding embarrassments and disappointments were absorbed in the hope that this part of the entertainment would go off with *eclat*. But lady Fitz-john, being persuaded that ball suppers are only designed to be looked at, and having observed that nobody at Glanville castle ate more than a sandwich and five dried cherries, originally calculated her eatables by this rule, and depended chiefly on painted *pâtés* and baskets of flowers to assist her *plateau* in covering her table."—This perhaps may serve as a hint to our country gentlemen, and men of fortune, at whose tables too much of this penury is visible. A little taken from the scottish custom of soaking in port after dinner, might induce many to banish from their supper tables the miserable and meagre tray, in which two potatoes, three poached eggs, and acorn goblets filled with fairy food, display only the spectre of a supper.—"Most fetes," continues Mrs. West, "like lady Fitz-John's, are a mixed scene, productive of alternate amusement and chagrin, both to the entertainer and entertained; and I can describe no spell more likely to insure the former, and abate the latter, than that the host should not aim at something *transcendantly fine*, and that the guests should never wish to be thought *fastidiously elegant*."

In imitating the manners of the great, however, we would not wish to conceal that some difficulties are to be encountered. We have in a former paper re-

marked, that there is something in *this* original, which no imitation can perfectly attain. It has been observed that the statues, &c. brought by the French from Italy make a poorer figure at Paris than they did at Rome, because removed from that classical ground with which fame and history had connected them. In like manner, the furniture and decorations that seem *at home* with persons of real rank and fashion lose something by being transferred to more humble mansions, although the variegated lamp may be hung in the same festoons and by the same eminent tinmen, and the berries may be honestly paid for in Covent-garden market. A man who would arrogate to himself a *title* might insult, but he could not rob the fountain of honour. Persons of rank are the source and original of fashions, and it is not even in their power to dispense to others that *eclat* which is their own By birth and privilege. All imitation therefore of their manners must be illegitimate.

Notwithstanding this disadvantage, our imitators in lower life have been able to discover some points of resemblance within their power. If they cannot, for example, assemble five or six hundred persons, yet if they bring together a number sufficient for every inconvenience of society, the proportion is still kept up: and the logicians tell us, that "a small "glass may be full, as well as a large one, only the "large one will hold more." Another resemblance, in which they may yet be more perfect, is the lateness of the hours of assembling and departure. The night is free to them as well as to their betters; and as they have the pleasing recollection that late hours may, and indeed often must interfere with the business of the day, we are not sure whether in this respect they have not an additional inconvenience of which their betters can have no idea, and which must be charmingly perplexing, although, citizen-like, they may also, in order to render the imitation more successful, contract the same contempt for economy in their amusements, the same disdain of money in *stakes* and *bets*, and thus keep up a proportion which wants nothing but rank and title to compel the wit or the moralist to stand at that awful distance which, without any arrogant pretensions to either of these characters, we have hitherto endeavoured to preserve.

Thus far the imitation is tolerably correct: but there is one difficulty not so easily surmounted, to which we could not before allude, and which arises chiefly from a want of practice in giving tumultuous entertainments. Not only servants must be hired *pro tempore*; but there must be a general borrowing from all the guests of articles too numerous for any one house to contain, or require for its own purposes. This creates an *embarras* which, we are apprehensive, has nothing in it very *stylish*: and what happened more than once within our knowledge that the blundering awkwardness or simplicity of servants have betrayed secrets which detract very much from the grandeur of the supper. When it is thus discovered that the plates belong to one person, the dishes to a second, the spoons to a third, the knives and forks to a fourth, and the candlesticks to a fifth, it presents the notion, not of a hospitable entertainment, the effect of opulence and liberality, not of an entertainment given, but lent, not of resources inherent and ready, but of supplies furnished by voluntary contribution. This is surely very awkward, to say the least, as the guests are deprived of the opportunity of complimenting the hostess on the profusion with which her house is furnished, when they discover that they would be only complimenting their own loans, that no two things are alike, or belong to the same person, and that the covers, dishes, decanters and tumblers, are, like themselves, only visitors, and must return home next day to their little cupboards, after having perhaps suffered the same accidents by crowd, pressure, and rough handling.

But still let not those who have adopted the subscription mode of providing for their guests, suppose that we have recorded the practice in a way of censure. We know and believe that it is reckoned genteel, and what "every body does" must be genteel beyond the reach of our puny disapprobation. If in former days it would have been reckoned mean, that must have been when houses were calculated for domestic society, and not to be used as taverns, when some confused and odd ideas of independence were prevalent, and men refused to do any thing that they could not do without lying under obligations which they might be desirous to conceal, and when they had no knowledge of what a poor helpless being man is, without the aid of his fellow-creatures.—No, we have a better motive for the present remarks, which is to recommend a mode adopted by the great, and which is now to be recorded among the incipient glories of the nineteenth century, and our readers may therefore depend on its being infinitely more genteel, as well as economical, than any scheme yet invented.

The circumstance to which we allude is contained in an extract from the St. James's Chronicle (and probably other papers) of last year, and is related in the following words. "*Law Intelligence. Court of King's Bench, July 9.—Cafe v. Vaughan.* The Learned Counsel who led this cause, said, he never knew till he read his brief this morning, how some things were done in the *great world*. He was not aware that all the shew made at some fashionable routs was done so very cheaply as it was. The Jury would scarcely believe that all the finery exhibited might be borrowed at a very low rate indeed, and that all the articles displayed on such occasions, and which the guests might easily suppose were the property of the host, were only furnished upon credit for that particular occasion. His client, the Plaintiff, who was a glass and china-man, had furnished the Defendant, a lady of fashion, living in Manchester-square, for one of her fashionable parties, with some articles in which he dealt, and the bill, of little more than 5l. was for the hire of those articles. The lady insisted upon an abatement, and offered him 30s. less than the bill, and on that ground defended the action. The Jury would scarcely believe how cheaply the thing was done, and at how little expence a great party might be accommodated: what would they suppose the hire of 300 drinking glasses? only 12s. 6d.; and 80 rummers were charged only 3s. 6d.

"Mr. Erskine here interposed, and offered to refer

the cause to any one, which was acceded to by the Plaintiff."

On this case it appears quite unnecessary to offer any observations. It is pregnant with reflections which are within the scope of the meanest understanding.—In our next, we may indeed advert to the subject again with a view to offer some *rationale* for the present crowded state of society, and to account for the late astonishing increase in the population of parties of pleasure.

POLITICS.

IN a former Number of the Journal, where we began to investigate the effects which the French revolution had produced upon the minds of the inhabitants of the different countries of Europe, we remarked, that the principles which encouraged the insurrection of the lower orders against the higher assailed us when arrived exactly at that state of society at which those principles are dangerous. The progress of wealth, and the diffusion of improvement, had loosened the hold of feudal ideas upon the minds of all classes of the people, and the great body of them were not yet sufficiently instructed to perceive the unalterable connection between the sacred regard to property, and the existence of social order and happiness. The allurements therefore which the partition of the possessions and authority of the rich held out to the poor, when these latter were called upon to observe their superiority, and to consider their rights, did inspire them with wishes, and with purposes; and Europe was very near becoming a prey to equalizing doctrines.

The complete investigation of the circumstances which rendered the state of France the most favourable to the birth and nurture of these ideas, is one of the most profound and instructive of human speculations. These circumstances, however, even in point of number, are an extensive subject; and many of them depend on principles which lie too deep in human nature to be disclosed without developements longer than are consistent with the plan of periodical publications. But there are some obvious considerations, and those of the first importance, to which the attention of our readers may with profit be directed.

We consider the peculiar state in which the French were with regard to that illumination which is derived from literature and books, as one cause which rendered them susceptible, in an extraordinary degree, of those absurd ideas of legislation, whose effects it is our object to investigate. Literature had long been cultivated in France, and with great success. It had, since the time of Louis XIV. been more the fashion for people of station in that country to attend to letters, and to men of letters, than in any other part of Europe; and the concerns of literature formed an important class of those objects which occupied the curiosity, and directed the vanity of the great world. At the same time the mass of the people remained in a very gross state. In a few of the towns, industry had made some progress, and, by its necessary consequence, had bettered the condition of the labouring people. It is known, however, that agriculture in France was always in the most degraded state, and the condition poor and wretched of all who were engaged in it. It is known too that the manufactures of France were always too insignificant to affect the condition of any considerable proportion of the inhabitants. In this depressed situation, with no provision made for the education of the lower orders, ignorance among them was unavoidable; and that credulity which is its necessary attendant was equally so, as well as that love of change inspired by the sense of wretchedness. Even the higher orders, though their conversation was full of literary concerns, were very imperfectly instructed; and the temper and pursuits of a French nobleman were as little consistent with solid information, as those of the men of like situation in other countries. The real men of letters in France were always a very inferior number; and it is worthy of particular attention in this enquiry, that they are works of imagination and taste, not of science, by which the French literature has been chiefly distinguished. It is remarkable, too, that with regard to science, they had not reached beyond that state of improvement when the construction of theories is thought the business of philosophers; and very few specimens indeed are to be found in their scientific productions of enquiries conducted on the principles of induction and of nature. Even experimental philosophy itself is by them distorted into hypothetical systems; and the philosophy of mind, in their hands, is a tissue of the most wretched absurdities. The ignorance of all French writers in this important branch of knowledge is profound. A situation of this kind, where so few were found having minds thoroughly seasoned with knowledge, and where so many were remarkable for pretensions to knowledge, was peculiarly exposed to the greedy reception, without examination, of all brilliant ideas, of all speculations recommended by novelty, and whose consequences promised any thing great and dazzling.

There was something, too, in the situation of France which gave this evil tendency more than ordinary force in the case of political speculations. Of all absolute governments, probably, which ever existed, that of France was the mildest and most generous. It did not prohibit the discussion of political subjects; on the contrary, it encouraged it. Although freedom was thus permitted to a very considerable extent in the expression of political opinions, it was not, however, complete; the writers still felt upon themselves a certain degree of restraint, and after having spoken out so far, they broke off, and buried the rest in silence. This is understood to have been particularly the case with Montesquieu, the most sound and judicious of all the political writers of France; and it is not doubted, that he would have explained more fully several of the most important principles of government, had the view of consequences not deterred him. In this manner, the French people received a sort of half instruction in politics, which enlightened them sufficiently to perceive many defects in their existing government, but went not so far as to give them any just conception of the principles which form a free and regular government. The restraint, too, under which the writers were laid by the imperfect freedom allowed to the publication of opinion, obliged them to ex-

press their censures in a way which did peculiar hurt, by inuendo, and implication, rather than direct statement. By these means discontent with the existing institutions was very plentifully spread, but no exact knowledge was distributed of the institutions capable of establishing a happier order of things. This was necessarily a state of extreme credulity with regard to all projects for amendment; and the most extravagant was of course regarded as the most effectual. For complete proof of that ignorance remaining in France by the restraint under which discussion lay, we appeal to the writings of that crowd of authors who have sprung up during the last 20 years, in which the crudest ideas only, respecting the principles both of order and wealth in a society, are to be found. They appear to have been incapable of understanding even what was taught by their more eminent authors; and to have drawn conclusions from their writings which they never intended. This fate has befallen particularly the writers the most distinguished for their eloquent encomiums of liberty, as Raynal and Rousseau, though even they are not altogether free from that charge of ignorance which lies so heavy upon the rest. When ignorance and presumption in the political projectors found the higher orders prepared with vanity and credulity, and the lower with discontent and credulity, to adopt their ideas, foolish changes were unavoidable.

We consider, in the next place, the national character of the French as a powerful cause of the exhibition of equalizing projects in that country more readily than in any other. No people have retained with more uniformity, for such a length of time, any characteristic feature, than the French have retained a reputation among all their neighbours for a certain volatility and lightness of disposition. An extreme susceptibility of all impressions of the moment is a natural part of this disposition, and a restlessness, an eager activity, and a love of change are necessary consequences. This disposition, as long as it was confined by the arm of power, exerted itself on trifles; but as soon as it was allowed to turn toward things of importance, it was its nature to rush upon them with eagerness and presumption. Excessive vanity seems to be a necessary ingredient in the same composition of mind. Into the character of no people probably did this ever enter as so large an ingredient as into that of Frenchmen. The idea, accordingly, that they were discoverers and improvers in politics, and in the art of government, excited their utmost ardour. This taught them likewise to disdain to look at the institutions of any of their neighbours, and take lessons from them; on the contrary, they conceived that the further they went from every thing which heretofore had been established among mankind, the better they should go. In this temper they set upon the enterprize of pulling down their old fabric of government, which they did to the ground; and their resolution to be improvers, joined to their ignorance of human nature, and of the eternal laws of human society, erected a thing in its place, a monument of everlasting instruction to mankind, which inverted the order of human affairs, depressed every thing which was exalted, exalted every thing which was low, and seated in the chairs of authority, from the most degraded and corrupting situations, wretches, monsters, who fastened their bloody fangs in the bowels of their country, and sought only to appease their fears, their hatreds, their lust of wealth, by the destruction of every man who possessed either talents, property, or virtue.

The state of manners, too, in France, is, in our opinion, to be reckoned no mean agent in the introduction of those causes which have produced the evils of that country. This is allowed, on all hands, to have been extremely corrupted. The dissolution in particular of the married state, and the corruption of the sexes, at least among the higher orders, was carried to a degree of excess, of which there is scarcely any example among mankind. In this state of things, any affection of parents to the children is a thing not very possible, and still less possible is any affection, or any reverence of the children to the parents. Children who grow up under this moral culture are not likely to be impressed with great reverence for magistrates, of which parents are the representatives: a general disregard of all authority, and of all subordination becomes the general characteristic of the people; and anarchy, or iron despotism is the only alternative. There was something particularly unfortunate in the situation of France with regard to moral instruction. This, in modern Europe, had been conveyed to the people only through the medium of religion But religion, as taught by the church of Rome, was certainly not a very perfect vehicle of moral instruction. By the intolerance, too, of that church, no permission was granted to the wisdom of individuals to communicate more enlightened principles of religion. It was much safer to write against religion altogether, than against the particular corruptions of the church. When Frenchmen, accordingly, became too enlightened not to be shocked with these corruptions, such was the course which they took. They attacked religion itself; they succeeded in destroying very generally the belief of religion in all classes of the community: and when religion, by which only morality had been taught, was taken away, morality went along with it, and the mind was left totally destitute of principle of any kind. Sordid selfishness directed the actions of every man with regard to his neighbour, and abandoned sensuality, with regard to himself.

By these, together with many other causes, did the new and extravagant doctrines of politics receive admission into France. We leave it to a Frenchman, whom we before promised to quote, to describe their progress after they were introduced.

"The disorder of the finances, and the difficulties of the administration, which had been encreasing from the time of Louis XIV. were raised to a height by the expense of the American war. Mercenary courtiers could think of no better means of overcoming these difficulties, than proposing changes of the ministers, and these changes, always more unfortunate, by removing the confidence of the people, created at last that opposition of the parliaments, which led them to demand the assembly of the States General.*

* Mr. Pitt, afterwards Lord Chatham, travelling in France, when young, observed a decision of the parliament, which prohibited the execution of an edict of the king, pasted up by the side of that edict. From this single fact that discerning man predicted that a revolution would soon overturn among us the royal authority.

"It was impossible but that this contest between the throne and the parliaments, between the ministerial power and the strength of opinion, should produce important changes in the government. And it is impossible to forget the patriotic impulse which seemed, in 1788, to actuate all orders of the State. It still was easy to reconcile all interests, to restore order to the finances, and confirm the royal authority; the means would have presented themselves in multitudes to real statesmen; but the ministers of Louis XVI. seemed to have a bandage over their eyes. Incapable either of probing our wounds, or healing them, they did not attempt it; and discovered no other expedient but that of consenting to the convocation of the states of the kingdom.

"It was impossible to chuse a more unfortunate moment for that assemblage, and it ought to have been foreseen that the opposition of the ideas and interests of the deputies of the three orders would produce the most violent dissentions, if the court itself did not direct the revolution, prepared long before in the minds of men, by the declamations of our pretended philosophers, by the anticipations of a crowd of half learned people, formed by the perusal of their works, by the corruption of the people of all ranks, particularly the higher, and by the ridiculous arrangements of the government, which excluded the people from all employments, either in the law or the army, and from the higher stations in the church.

"Unfortunately there was no one in the councils of the King who had ability, virtue, or courage enough to be able to direct him in such difficult circumstances. No attempt even was made to trace the course which the states ought to follow; and that numerous assembly met, in the midst of the general ferment, without knowing itself what it was going to undertake.

"There were observed, among these members, men distinguished for their genius, and knowledge of different kinds; but no one possessed that union of knowledge, energy, morality, and personal authority, which could controul and direct the passions of the assembly to the grand object of public utility. Party spirit, hatred, revenge, soon exhibited themselves in the midst of an assembly, in which nothing ought to have existed but the desire of serving the state: and the extreme ignorance of the greater part of the deputies, and of the people, uniting with the delirium of passion, produced those terrible subversions which covered France with victims and with ruins.

* * * *

"The more we reflect on the subversion of the throne of France, accomplished on the 10th of August in four hours, the more are we convinced that it would have been impossible in an age, had there been in France any point of retardation, where the royal authority, and public opinion, could have met with refuge and support. But the constituent assembly, by confounding all ranks, destroying all constituted bodies in the state, and subverting all true spirit of liberty, and of patriotism, had raised up a sect, whose monstrous opinions and furious frenzies could neither be calculated nor restrained.

"The day, on which France saw her king perish on a scaffold, was the consequence of the 10th of August. Pretended thinkers, demi-philosophers, saw in these terrible events only the fall of a man whom the principles of equality had reduced to a level with others, instead of seeing in them the loss of a magistracy necessary for the preservation of the rights of the people; but the whole nation beheld in that awful catastrophe the consummation of all its misfortunes; and from that period the tyranny exercised in the name of the people has known no bounds; the actors in these cruel tragedies tearing one another to pieces for the share of authority, dreamed of nothing but plots and treasons: and in their just terrors, one would have said that they desired, like Caligula, to cut off all the heads in the nation at one blow.

"In these horrible days perished the most illustrious, the most enlightened, the most virtuous persons, whom France contained. Generous Malesherbes! Barbarians laid on you hands polluted with the blood of your children, and you had no other consolation, but that of seeing them snatched from this accursed land!

"Then was sacrificed the accomplished Lavoisier, no less eminent for the beauty of his character, than for his profound discoveries.

"Then perished that princess, the example of every virtue, whose fraternal tenderness equalled her courage.

"Then it was that the daughter of the Cæsars, the unfortunate wife of Louis XVI. received, after so long an agony, the stroke which finished her unutterable sufferings.

"Then it was, in short, that innocence, youth, ability, virtue, beauty, old-age, met every day with death in the midst of the grossest ignominy.

"Why can we not efface, by our tears, the memory of those terrors? They were not the work, at least, of the people, as has been unjustly said; no, it is impossible to believe that this unfortunate people, endowed with sensibility, would ever have consented to so many crimes, if they had been allowed to express their wishes, and if the effects of tyranny had not fettered even its movers."

The state in which the French revolution has left the minds of the inhabitants of that country, cannot with ease be exactly either understood or described. The principles propagated during that period, promoted a complete revolution in all the habits of belief respecting political, moral, religious, or domestic affairs. To what degree the old habits of belief were eradicated, and new implanted in the whole mass of the people, must in a great measuse be an object of conjecture, even with the man who has the most extensive and intimate intercourse among them. That a multitude of those habits went completely is most certain. One of those, of which the fewest traces appear, is the regard to birth and titles which formerly so much prevailed. As to an admiration of the trappings of state in their rulers and chief magistrates, it seems to be nearly as great as ever. We see, too, that the old habits of belief respecting religion remained in sufficient force to bring them back to institutions, in some degree, at least, resembling the former.

With respect to sentiments of morality, the principles of nature will always have considerable force. But it is certain that the sight of the crimes which have been committed, and the habitual fears in which every man has lived, must have had a very unfavourable effect upon the minds of the people. They have been compelled to foster self-love, and malignant rather than benevolent sentiments towards others; respect for virtue has been lost; and it is little now considered either as a ground of self-estimation, or of dignity in the eyes of others; and indeed it is the general principle, even of their philosophers, that utility only constitutes duty.

The miseries which the people have suffered, from all the governments of which they have had experience, the multitude of them which have succeeded one another with such rapidity, the accusations with which they have always loaded one another, and the glaring absurdities which they have all exhibited,

have well nigh disgraced all government in the eyes of the people; and we believe it would be an expression not far from the truth to say that they have no political opinions at all. Exhausted with the miseries and terrors of the revolution, they unite in the most passionate desires of its termination, and are ready to receive and to bless any means of accomplishing that object. Toward the present government they appear to be totally passive, and willing to receive whatever it chuses to impose. But what may be the duration of this apathy, it is impossible to foresee; or what turn their passions may next take. The sentiments of the author whom we have already quoted, describing what he daily witnesses, deserve particular respect.

"At this moment," says he, "the rapidity of events, the experience of the past, the inconstancy of the nation, have turned the tide of sentiment in a direction perfectly contrary to that of the revolution, and of liberty; the exaggerated hopes with which the people were fed, are vanished, credulity is at an end; every man finds himself struck in his person, in his affections, in his possessions, in his industry: and if speedy and decisive measures are not taken to restore opinion to health, this disposition of mind may involve us in civil war.

"This frightful prospect will appear but too probable, if we consider the rapidity with which the French character passes from one extreme to another. Lately, liberty and equality were our idols; at present they are considered as only philosophical chimeras. The people ought to be led by reason alone; at present, every one cries the people is a wild beast, which must be conducted by force. Resistance of oppression, fraternity, and the patriotic renunciation of self, were the fine phrases of our wise talkers; now the only language heard is to recommend a blind submission to government, disregard of public affairs, and the concentration of one's own interests. Our legislators and philosophers doubted concerning nothing, and pronounced with assurance concerning every thing; at present, astonished at the effects of their own ideas, they doubt concerning every thing, and to conceal their shame, and preserve their self love, they would make us believe that there is nothing certain, either in politics or in morals. Formerly we were eager for pamphlets, news-papers, dissertations both political and economical; at present we wish to engage in no discussion, to read no instructive book, and the most ridiculous novels and romances are the only subjects with which we are occupied."*

It is with real grief that we present to our readers the following message sent on Tuesday by the King to both houses of parliament. We earnestly hope that war is not about to be renewed, an event which must be ruinous in so extraordinary a degree to both France and England. But, both the tone of the message, and the vigorous measures which are adopting by government, prove but too completely that differences of a serious nature exist between the governments. All the ships of war, at Portsmouth, have received orders to repair to Spithead. A fleet of observation will immediately be formed; and the most expeditious mode of raising seamen has been resorted to. Press-warrants have been issued, and numbers of sailors found in and about London were yesterday examined before the Lord Mayor, and sent to the tender. The funds in consequence of these measures have felt some depression. Consols yesterday left off at 64¼—they had been as low as 62½—Omnium 12 Discount.

"G. R.

"His Majesty thinks it necessary to acquaint the house, that as very considerable military preparations are now carrying on in the ports of France and Holland, his Majesty thinks it expedient to adopt measures of precaution for the safety of his dominions. Although these preparations are avowedly directed to colonial purposes, yet, as great and important discussions are now carrying on between his Majesty and the French government, the issue of which may be uncertain, and his Majesty being solicitous for the continuance of Peace, is induced to make this communication, in the full persuasion, that whatever may be the event, he may rely with perfect confidence on the public spirit and liberality of his faithful commons, to take such measures as shall conduce to the honour of his crown, the safety of his dominions, and the essential interests of his people."

* Considerations sur l'Organisation Sociale Introduction.

ERRATUM.—In the Account of La Harpe, page 279, No. 9, for "the Memorial was published in 6 vols. 8vo." *read* "all Mr. La Harpe's works mentioned in the paragraph preceding the last, were published in 6 vols. 8vo."

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Press of matter obliges us to defer several of our advertisements to the next Number.

PHILOSOPHICAL TRANSACTIONS.

THE PUBLIC are respectfully informed that, from its very imperfect execution, it has been resolved wholly to discontinue and cancel the Edition of the Abridgement of the *Philosophical Transactions*, of which one Volume was published last year by Messrs. Bunney and Gold.

Messrs. C. and R. BALDWIN have been induced to publish a new Abridgement of the same Work, to be edited by

CHARLES HUTTON, L.L.D. F.R.S. Mathematical Professor at Woolwich.

The Department of Medicine, including *Anatomy, Physiology, Chemistry, &c.* will be undertaken

By RICHARD PEARSON, M.D. F.S.A. of Bloomsbury-Square.

That of Natural History, including *Zoology, Botany, Mineralogy*, &c. by a Gentleman eminent in those Sciences, whose name will be announced in a Prospectus, which will be laid before the Public in a few days.

The first part of the Work is preparing with all possible dispatch, and will be shortly ready for publication.

New Bridge-street, March 7th, 1803.

This Day is Published, Price 1*s.*

A SERMON on the Depravity of the Human Heart, exemplified generally in the conduct of the Jews, and particularly in that of Lieut. Col. Despard, previous to his execution, preached at St. George's, Hanover-Square, Feb. 27, 1803, by the Rev. WILLIAM LEIGH, L.L.B.

Morning Preacher at the aforesaid church, and Rector of Little Plumstead, Norfolk.

Printed for John Hatchard, Bookseller to her Majesty, No. 190, Piccadilly; and sold by Mr. Park, Bookseller, Ashbourne, Mr. Beatniffe, Norwich, and Mr. Barrett, Bath.

NUMBER 11.] THURSDAY, MARCH 17, 1803.

PHYSICS.

I. *On the Wax Tree of Louisiana. By* C. L. Cadet.*

A VARIETY of plants, the *croton sebiferum*, for instance, the *tomex sebifera*, the poplar, the alder, the fir, and several of the tribe of labiated plants, yield, when boiled in water, a solid inflammable substance, resembling wax or tallow; but the tree which yields this substance in greatest abundance is the *myrica cerifera*, or wax tree.

It is mentioned particularly in the history of the Academy of Sciences for 1722 and 1725, that Mr. Alexandre had observed in Louisiana, a tree, of the size of a cherry-tree, and having the appearance and odour of the myrtle, which bore berries about the size of a coriander seed; that these berries contained a small round kernel, covered with a shining wax, easily separated by boiling the berries in water. This wax, according to Mr. Alexandre, has more consistence, and is more brittle than ours. The inhabitants of Louisiana employ it for making candles. The seeds yield, he says, a red lake, and the water in which they are boiled is an infallible cure for the most obstinate dysentery.

The myrica cerifera has been examined by botanists, and is even cultivated with success in the different botanic gardens of Europe. There are several varieties of it: two of them, the *myrica cerifera angustifolia and latifolia*, are described by Ayton. The first grows in Louisiana, the second in Pennsylvania, Carolina and Virginia. The first of these is delicate, but the second prospers remarkably well in France, and has even succeeded in Prussia. Each tree, or rather shrub (for it scarcely is entitled to the name of tree) yields about 7 pounds of berries, from which nearly one fourth of their weight of wax is obtained. The process is extremely simple. The berries are boiled in water, being occasionally squeezed against the sides of the boiler to hasten the separation. The wax swims on the surface, and is skimmed off with a spoon. When the berries refuse to yield more they are taken out, and fresh ones put in their place, boiling water being supplied as fast as it evaporates. The wax is filtered through cloth, and then cast into cakes. After a certain time it is necessary to change the water in which the berries are boiled, and employ fresh water.

Mr. Cadet has lately made a set of experiments on these berries, and on the wax which they afford. The following are the observations which he has published. The berries of the myrica cerifera are about the size of a pepper-corn. Their surface is white, mixed here and there with rough black spots. They have a greasy feel. When squeezed, a starch-like matter separates from them, mixed with small black round grains, resembling gun-powder. There remains behind a bicotyledinous kernel, surrounded with a thick woody covering. When a handful of berries are rubbed upon a hair sieve, there passes through a white powder mixed with black grains. Alcohol dissolves the white powder, water causes it to separate from the solution, and to swim upon the surface of the liquid. When melted, it assumes exactly the appearance of the yellow wax of Louisiana. Hence it follows that the wax of the myrica is the white starch-like matter which envelopes its berries.

Mr. Cadet took it for granted that the black powder which was mixed with the wax contained a colouring matter, and made many experiments in order to extract from it the fine lake mentioned by Mr. Alexandre. After having triturated it in a mortar, he boiled it in a solution of alum, but the liquid scarcely acquired any colour, and the alumina, when precipitated by an alkali, was only slightly dirtied. He poured alcohol on another portion of the black powder. The tincture assumed the colour of wine lees, and on the application of heat it became as red as a strong tincture of Quinquina bark. This led him to suppose that the colouring matter of the black powder was resinous; but on adding water to the tincture no precipitate appeared. On adding to the tincture water holding alum in solution, a slight precipitate appeared: a solution of sulphat of iron rendered it as black as ink.

The astringent matter announced by Mr. Alexandre exists in the decoction of the berries. Mr. Cadet boiled some of the berries in a silver bason. The decoction assumed a green colour, its taste was slightly astringent; it yielded a black precipitate with the solutions of iron. When heated in a clean iron vessel it quickly became black. To ascertain whether this property was owing to the presence of gallic acid or tan, he added a little of a strong solution of gelatine, but no precipitate was formed. Hence, according to Mr. Cadet, it is in consequence of the presence of gallic acid that the decoction of the berries of the myrica cerifera owes its property of stopping dysenteries.

The wax of the myrica is always of a greenish yellow colour. Its consistence is greater than bees-wax, and it is more easily reduced to powder. Hence Mr. Cadet concludes that it is more oxygenised than bees-wax. Candles made of the wax of the myrica burn with a white flame, give an excellent light without smoke, do not run, and, when newly made, diffuse a grateful odour, which the inhabitants of Louisiana consider as very salutary. When distilled, a portion of the wax comes over like butter, whiter than before, but deprived of its former consistence; another portion is decomposed, and yields water, sebacic acid, and an empyreumatic oil. A good deal of carbonic acid gas and carbonated hydrogen gas is evolved, and there remains in the retort a black charry bituminous resi-

* Annales de Chimie vol. 44, p. 140.

dium. The same products are obtained from common wax.

Alcohol dissolves the wax of the myrica, but ether is a better solvent of it, and either of them will bleach it. When boiled with weak sulphuric acid, it becomes whiter than before, but yellow bees-wax by this process does not change its colour. Oxymuriatic acid bleaches both kinds of wax; but that of the myrica with more difficulty. Ammonia dissolves the wax of the myrica: the solution is brown, and a portion of the wax is converted into soap. This alkali has much less action on bees-wax.

When agitated in a solution of boiling potass, both species become white, and a soap is formed. Mr. Cadet thinks that the alkali in this process exerts a double action. It first combines, according to him, with the constituent principles of the wax, and this combination favours the subsequent combination of the wax or oil with the oxygen of the atmosphere. Hence, says he, the reason that oil, on being combined with an alkali and afterwards separated by an acid, is always concrete.

When the soap of the myrica wax is decomposed, the wax is obtained of a white colour, but in a particular state, which renders it unfit for use.

Mr. Cadet recommends the cultivation of the myrica to his countrymen, and points out the advantages which would result from it. The astringent principle which it contains might be employed in medicine, and would be extremely useful to the dyer, the hatter, and the tanner. The wax might be applied to all the purposes of bees-wax, and if it could be afforded at a low price, soap might likewise be made of it.

The art of bleaching it requires some attention. Sulphuric acid and oxymuriatic acid present themselves for that purpose. Mr. Cadet supposes that the process might be accomplished advantageously, if wax were stratified with the hyperoxymuriat of lime of the bleachers, and the acid disengaged by means of weak sulphuric acid.

II. *On the Quality of Soap.*

Mr. Vebert, in a late number of the Journal de Chimie, by Van Mons, informs us that certain species of white soap, instead of yielding a limpid solution in alcohol, form with it a jelly which becomes liquid by the application of heat. To ascertain the cause of this appearance he made the following experiments.

1. Soap, formed by triturating in a mortar two parts of olive oil and one part of alkaline ley, was very perfect, and formed no jelly in alcohol.

2. To six parts of this soap he added one part of starch in powder, and mixed them together before the soap acquired consistence. But when this mixture was dissolved in alcohol, the starch separated from it.

3. He triturated together one part of alkaline ley, two parts of melted tallow, and one fourth part of starch. In a few hours this mixture formed an extremely hard soap, which produced a jelly with spirit of wine and water. The jelly which it formed with one-eighth part of water was opake; with one-fourth it formed an apparently excellent soap.

4. The soap made with tallow and alkali, without starch, yielded also a jelly, but which had less consistence.

5. Two parts of grease, and one of alkaline ley, yielded a white hard soap, which dissolved in warm alcohol, but gelatinized on cooling.

III. *On the Absorption of Air by Water.* By Dr. Priestley.

In the fifth volume of the American Transactions, Dr. Priestley gives us the result of his experiments on the apparent absorption of air by water. He finds that, if sufficient time be allowed, all kinds of air without distinction will be absorbed by the water in which they are confined.

1. In the beginning of May 1798, he set by a mixture of nitrous and common air then occupying the space of 1.25. By the 18th of October its bulk was reduced to 0.34, although no agitation had been used; on the 30th of November its bulk was 0.27; December 2d it was 0.22; January 11th it was 0.11; February 12th it was 0.09; February 21th it was 0.06, and on April 3d it was completely absorbed. A mixture of these airs confined over mercury remained without change from October to April.

2. A mixture of common and inflammable air, fired together December 13th, and then occupying the space of 1.20, was wholly vanished by July 19th.

3. When common air is subjected to this experiment, its oxygen is always first absorbed. Ten ounce measures of common air exposed to water from the 28th of July to the 15th August in a glass jar, about ten inches in diameter, were reduced to seven ounce measures, completely *phlogisticated* (as Dr. Priestley terms it,) as was another quantity of 20 ounce measures, when it was reduced to 15.

4. To ascertain what kind of air would be most affected in these circumstances, he exposed equal quantities of different gases on the 11th December. They were all gradually diminished till July 1st, when the oxygen gas was reduced to a very small bubble; and on July the 6th, the hydrogen gas and common air, and an equal mixture of common air and nitrous gas, were all wholly vanished. Nitrous gas was always absorbed sooner than any other, till it was reduced to the state of azotic gas, which was soon effected, if the surface exposed to the action of water was large.

5. He put one measure of common air into a glass tube 5 feet long, and placed in a trough of water 18 inches deep. So that 6½ feet of water intervened between the confined air and the surrounding atmosphere. Being left in this situation from June 5th to July 28th, it was reduced to 0.8, completely phlogisticated: so that this long space of water had made little or no obstruction to the process.

6. Scarcely any difference in the rate of absorption was produced, by compressing the confined air by plunging the jar containing it to some depth under water. But dilatation by an air-pump prevented absorption, and compression by a condenser rather promoted it.

7. The last state of all these gaseous bodies before they disappeared was that of azotic gas.

8. Agitation promoted the absorption to a certain point, but impeded the total absorption; and when the water was warm, the quantity was in some cases increased.

9. When one half of any quantity of hydrogen gas was absorbed by this process it was wholly phlogisticated, though the air given out by the water in which it was agitated was of the standard of common air. Having agitated 2 measures of inflammable air in distilled water for an hour, he observed that, after being diminished, it was increased in bulk, and after some time it occupied the same space as at first. Being then examined, it was not at all inflammable, but had no carbonic acid in it, and was of the standard 1.13 when the air in the water was of the standard 1.01. Oxygen gas was soon reduced by this process to a much lower standard. After agitating 3 measures of this air of the standard 0.05 with two equal measures of nitrous gas, the quantity was 1.66, of the standard of 1.17.—After agitating a mixture of 2 measures of hydrogen gas and one of oxygen gas, five minutes, it was reduced to 1.98; after 5 minutes more it was reduced to 1.16; after other 5 minutes to 1.7, when it extinguished a candle.

IV. *On Colcothar used for Polishing.*

It is well known that colcothar is a red oxide of iron, obtained by the decomposition of sulphat of iron. It is employed in order to give to steel its last and finest polish. But it does not answer the purpose, unless it be in its finest state of pulverization, and to reduce it to this state is a work of great labour, many successive levigations being requisite. Guyton Morveau has lately proposed an exceedingly simple and easy method. The felt of hats owes its black colour to iron. If a piece of hat be immersed for a few minutes in diluted sulphuric acid, the iron, according to Guyton, is precipitated red, and in the state of an exceedingly fine powder. When this powder is washed, dried, and moistened with oil, it is fit for use. It is usual for workmen to polish hard substances by means of colcothar laid on pieces of worn-out hat. Guyton's method is of course exceedingly economical, as it enables us to use hat alone for the purpose, after it has undergone a very simple process.

V. *On the Preservation of Animal Bodies from Putrefaction.*

M. Chaussier has lately announced, that if preparations of animal bodies be immersed for a certain number of days in a saturated solution of corrosive sublimate, and afterwards exposed to light air, they are no longer susceptible of putrefaction: they preserve their form, acquire considerable hardness, and are not exposed to the attacks of insects.

VI. *The Icelandic Horse.*

The King of Denmark, anxious to promote the happiness of his subjects, lately sent Professor Olaus Olavius to Iceland, in order to explore the Natural History of that country. The professor having fulfilled his mission to the satisfaction of his Majesty, the result of his observations have been published in the Danish language, from which we intend to give some occasional extracts.—As a specimen we insert the following.

A great number of horses are to be met with in Iceland. A peasant, in tolerable good circumstances, usually keeps ten or a dozen, and those who are at their ease from twenty to thirty, including saddle-horses, commonly three or four of this number, for the use of his wife and family. The horses are of different sizes, but they are all remarkable bony, and can endure a great deal of fatigue. The ordinary size is from thirteen to fourteen hands high. A beast of burthen will carry with ease from three to four hundred weight, and with this load they will travel at the rate of six miles an hour.

It is scarce possible to conceive the amazing instinct of this animal, of which they have given, on many occasions, the most unequivocal proofs. They will pass, the darkest nights, in the midst of snow, rain and storm, through windings in the mountains, which a traveller would scarcely trace in the midst of day, without missing a foot, and that at a time when every footstep is covered with snow and glazed with ice. When the rider is at a loss, he throws the bridle on his horse's neck, and commits his safety to a guide that never fails to conduct him with safety to the end of his journey, particularly if it be an old horse. The Icelanders believe that their horses can see ghosts and evil spirits in the night, and what has impressed this absurd opinion on their minds, is, that these animals in the dark are subject to little whims, such as stopping all at once in a full gallop, or wheeling out of their course, where there is no apparent occasion. When they have to pass a morass, or any dangerous place, they advance with all the prudence imaginable, and on those occasions they carry themselves so lightly, that they scarcely leave the print of their feet behind them. When they reach a marshy place, which they are obliged to cross, they first smell to the ground, as if they wished to sound the depth of the marsh, they then enter on it with a caution proportioned to the difficulty. If they betray any unwillingness to advance, the rider trusts to their judgment, and will not attempt to force them. If a horse should meet with one of those dangerous marshes in the beginning of a journey, he loses his spirits, and does not recover them again till he has conquered some difficulty. We should not end here, if we wished to recount all the wonderful stories which the inhabitants tell of their horses. They say that they will swim across rivers of considerable depth and rapidity, with their riders and with very heavy loads, that they will even swim across an arm of the sea in a calm, and make for the easiest landing point. It is certain, that horses swim with great facility, but I never knew of any horses that exceed those of the eastern part of Iceland in this respect.

VII. *Method of encreasing the Force of Gun-powder.*

It is said that Dr. Baini a physician in Tuscany, has discovered that the force of gun-powder may be encreased one third, by mixing it with the fourth part of its weight of pulverized quicklime. All that is necessary is to shake the two substances together, till the white colour of the lime disappears. It is even affirmed that various trials have been successfully made with this new powder on a large scale.

VIII. *On the Effects of Elder in preserving Plants from Insects. By* Christophe Gullet.

Mr. Gullet proposed elder several years ago, as extremely useful in protecting plants from insects. We do not know whether his method has been tried in this country, or, if it has, how far it has succeeded. Its simplicity, however, and importance induces us to insert it here.

1. He took some young twigs of elder, and whipt with them some cabbage plants at the period when the butterflies begin to appear. The butterflies frequently hovered round the plants, but never lighted on them, being deterred by the strong odour of elder which they retained.

2. He whipt in the same way, as high as he could reach, the branches of a plumb-tree which grew on an espalier. The whipt leaves remained green and in good condition, while, from at least six inches above to the top of the tree, the rest of the leaves were blighted, wrinkled and full of worms.

3. He tried to prevent the yellows in wheat by the same method, but the success did not answer his expectation; owing, he thinks, to the application being too late.

4. He thinks that elder might be effectual in preventing young turnips from being destroyed by insects. He tried the experiment on young cauliflowers with success.

IX. *On Gluten.*

Mr. Proust has lately extracted gluten from gum arabic, from gum adragant, from barley, from rice, and from horse-chesnuts; but potatoes did not yield him any.

X. *Action of Light on Muriat of Silver.*

It is now known that the sun's rays are composed of three different bodies, one which occasions heat, and is the least refrangible, a second which occasions vision and colour, and a third which blackens nitrat of silver, &c. and is the most refrangible, existing in greatest abundance beyond the violet ray. It was formerly supposed that when the salts of silver were thus blackened by exposure to sunshine, oxygen gas was disengaged. But Berthollet has lately ascertained, that when muriat of silver, covered with water, is exposed to sunshine, the black colour which it acquires is owing to the disengagement of a portion of its muriatic acid. No oxygen gas is disengaged, the water becomes acidulated, and contains common muriatic acid.

XI. *China Ink.*

From the analysis of Proust, it appears that real China ink is composed of lamp black, glue, and a little camphor. He has formed it of purified charcoal and glue, and finds that it possesses all the properties of the best China ink.

XII. *To extract Tungstic Acid from Wolfram. By* Bucholz.

Mix one pound of Wolfram powder with two pounds of carbonat of potash. Keep them melted for an hour in a crucible, stirring the mixture occasionally: then pour the whole into an iron cone. Reduce the mass to powder, and boil it in water till the liquid comes off tasteless. Decant off the liquid and pour muriatic acid into it as long as any precipitate appears. Wash the precipitate and re-dissolve it in boiling carbonat of potash. Precipitate a second time by muriatic acid. Wash the precipitate with a sufficient quantity of water and dry it. It is pure tungstic acid. By this process about two thirds of the Wolfram are obtained in the state of tungstic acid.

NOTICES.

We learn from Edinburgh, that Dr. Barclay, lecturer on Anatomy in that city, has at present in the press a very curious and important work on the Anatomical Nomenclature.

At the Royal Society on Thursday the 10th was read the continuation of Mr. Davy's paper on Astringent Vegetables, or the tonic juice of the *mimosa catechu*, or *terra japonica*, whose tanning qualities, Mr. Davy prefers to those of the Oak Bark. In the mouth it discovers a considerable astringency, followed by a sweet mucilaginous taste. *Terra japonica*, it is said, will do more in four days than Oak Bark in three months.

At the Society of Antiquaries on the same evening, Queen Elizabeth's House-book was continued.—The model of an Urn of baked earth from Stonehenge was exhibited, two feet and a half high, and one and a half in diameter. When found, it contained bones and ashes.

We copy the following article from the Journal de Chimie et de Physique, No. 10, an. 11, p. 124.

"The vaccinal eruption, as well as its virtue in preserving from the small pox, which Jenner imagined that he had first discovered, is described in a German Journal, published at Gettingen in 1769, under the title of *Allgemeine Unterhaltungen*, (Discourses on various Subjects.) The author, who assumes the title of *An old Economist*, speaking of a disease of horned cattle, mentioned by Livy, says, 'But it occurred to me that this disease might be the cow pox, generally known, and particularly in this country *(Gottingen)*, and which infects the young women, and other persons, who milk or otherwise take care of these animals.—I ought however to remark, that in that country, those who have taken the cow pox believe themselves perfectly secured from the infection of the ordinary small-pox, a circumstance of which I have ascertained the certainty myself.'

"In Holstein and Jutland there are many persons vaccinated 13, 29, 36, and 40 years ago, as well by infection as by inoculation, all of whom have hitherto been preserved from the ordinary small pox."

The practice is meeting with great encouragement on the Continent; and in places which one would scarcely expect to be forward in profiting by discoveries. No less than three treatises on this subject have within a few months been published in the Hungarian language. Numbers of children have already been inoculated for the cow-pox at Pest, Presburgh, Clausenburgh, and on the southern frontiers of Transylvania; and Dr. Tartter is performing that inoculation with great success in Moldavia.

Mr. *I. Sturm*, at Nuremburgh, has lately published the third number of the third section of his *German Fauna*, which contains descriptions of the following amphibious animals.—1. Testudo Europæa, *Schneid.* 2. Lacerta palustris, *Linn.* 3. Lacerta taeniata, *Schneid.* 4. Coluber natrix, *Linn.* 5. Anguis lineatus, *Laur.* 6. Anguis fragilis, *Linn.* 7. Coluber chersæa, *Linn.*

Of the *German Flora*, by the same author, we have received the eleventh number of the first section, wherein are described and figured—1. Ranunculus ficaria, *Linn.* 2.

Melissa officinalis, *Linn.* 3. Digitalis purpurea, *Linn.* 4. Digitalis ambigua, *Linn.* 4. Iberis nudicaulis, *Linn.* 6. Arabis thaliana, *Linn.* 7. Fumaria cava, *Hofm.* 8. Viola hirta, *Linn.* 9. Viola palustris, *Linn.* 10. Viola odorata, *Linn.* 11. Viola canina, *Linn.* 12. Viola tricolor, *Roth,* 13. Therium Alpinum, *Linn.* and 14. Myosurus minimus, *Linn.*

The famous balsam of Tolú is generally supposed to be obtained by incision from a tree, called by Linnæus, *Toluifera.* This opinion is incorrect. The tree which yields that valuable balsam is a species of the *Myroxylon,* called in Perú *Quino-quino.* It grows in the mountains of *Panalala*, in the woods of *Puzuca*, *Cachero* and many other places. At the beginning of spring incisions are made in the rind of the *Quino-quino*, and the balsam gathered in bottles, in which it may be kept liquid several years: in this state it is called *white liquid balsam.* But when the Indians collect it in calabashes, which is the common practice in the woods of Tolú in Carthagena, it soon condenses into a hard body, and is then called *white dry balsam* or *balsam of Tolu.* The *black Peruvian balsam* is extracted from the bark of the Quino-quino boiled in common water.

Dr. W. Folkeroma, physician of the city of Leuwarden, has lately published a Treatise on the medicinal properties of Hedera Arborea, common ivy, which he recommends as a sovereign remedy in haemorrhagic and pneumonic disorders.

LITERATURE.

Mémoires pour servir à l'Histoire de notre Literature depuis François I. jusqu'à nos jours; par M. Palissot, 2 *vol.* 8*vo, à Paris,* 1803.

Memoirs Illustrative of the History of Literature, from Francis I. to the present day. By M. Palissot.

We have often put a question to ourselves, whether, to a writer in literary reviews, a more entertaining object can be offered, in the line of his pursuits, than historical or systematical works of criticism published by some of his contemporaries he may then witness the occasional exertions of others in the same element as his own permanent occupations; he can rectify, improve, enlarge, or consolidate his own analagous ideas, and become, as far as his powers extend, the ultimate judge of critics, or, (to adopt an expression of one of our brother journalists) the *reviewer* of *reviewers.*

We have felt this uncommon pleasure on perusing the present work of the respectable veteran Charles Palissot, so justly celebrated in the happiest days of French literature, for his satirical and dramatic performances, for his phillipics against the *philosophism* of the last generation, and for his repeated predictions of the misfortunes which have consequently befallen his native country. The work itself, as the title evinces, and as it was known from the first edition in 1770, contains a collection of partial memoirs of the greatest French Literati, from the age of Francis I. to the present day; and as the avowed design of the author in this publication, was to give a *specimen of the method in which the articles relative to celebrated men ought to have been managed in Biographical dictionaries,* it was surely incumbent on himself to adopt the alphabetical arrangements of the several names to which his memoirs relate.

We are, however, sorry to find, in the very first paragraph of the introduction, a mistake of a singular nature, which has, we fear, a tendency to impair the merit of the work, and to give an unfavourable idea of the judgment and candour of the author. *I have looked,* says he, *into all the manifold Biographical Dictionaries, and, that of Bayle excepted, not one of them has given me the least degree of instruction: the title of great or illustrious men is usually bestowed on more or less known writers, without conveying any competent idea of their literary features, or their characteristic genius; and I might well compare these Dictionaries to the porticoes of our Gothic churches, in which clumsy, inanimate, insipid, and unexpressive busts are so uniformly surcharged, as to seem to have been all cast in the same mould.* The fallacy of this statement is still more surprising, if we consider the assuming and dogmatic tone in which it is delivered! Besides the numerous Biographical Dictionaries which have been published in England, and other analogous publications which have appeared in Italy and Germany, during the latter part of the last century, all of them so remarkable for a nice discrimination of the several shades in the genius or talent of the persons whom they mention, M. Palissot seems to forget that the celebrated *Dictionaire Historique,* published at Caen, by a society of literary men, possesses this very merit of characteristic details and literary features, in a considerable degree; and that, in its notices of some of the greatest men, it generally displays as accurate and satisfactory a picture of their powers and attainments as could possibly be required.

The memoirs allude to about three hundred and ten persons; and the author declares that it is less on account of the new, than of the altered articles, that the present edition is the most complete. We entertain no doubt but the perusal of these memoirs will afford great entertainment and information to their readers. Those among them who are not particularly acquainted with French literature, will be glad to find, in two small volumes, a rational notice of its generic character; those again, who have duly attended to it, will be equally glad to have recalled what may have formerly occurred to their minds on the same subject; men of taste and judgment will see, with pleasure, the masterly criticism, the happy expressions, and the finished literary portraits which are exhibited in the composition; and the lovers of deep research will indulge in examinations how far M. Palissot's performance may accord, in the same particulars, with the sketches of the progress of the human mind in France, lately made by Chenier, and by La Salle, with the analogous work of Sabathier des Castres, with the philosophical portraits of the literati and artists of the age of Lewis XIV. delineated by Voltaire, with the *siècles literaires* of Desessarts; &c. and decide how all these different works, and many others, may contribute to erect the building of a literary history of France, which, notwithstanding the numberless detached materials ready for combination, has not yet been undertaken.

Much as we are satisfied with the generic character of the work now under review, we feel it incumbent upon us to state that it has some striking defects

in the plan, in the method, and in the particulars. 1. The author solemnly declares that, *as Literature alone is the ground-work of his memoirs, and as he is not competent to judge of the merit of the great scientific men who have honoured the French nation, he must not be blamed if he takes no notice of the several individuals of the latter class.* Had he acted perfectly consistent with his plan he would not have mentioned the names of Bonnet, Des Cartes, Gassendi, Mallebranche, and others, who never had the least claim to polite literature. 2. It is also his avowed design *not to confine his account to celebrated men in the strict sense of the word, but to give a perfect picture of the existing literature.* Upon this it is unaccountable why he has not mentioned the names of the celebrated Arnaud, the author of *Les Epreuves du Sentiment*; of Terrasson, the judicious and elegant writer of the history of the Roman jurisprudence; of Garat, still alive, who possesses the singular merit of combining the deepest metaphysics with the greatest purity of diction in all his numerous writings; and what is hardly credible, of the ingenious and well-deserving abbé Batteaux, the most philosophical critic in France, next to Condillac. 3. He justly animadverts, in his preface, on all those literary biographers *who indulge in useless details about the marriage, the family, the travels, the domestic anecdotes, and the like particulars of their subjects*; but he himself manifestly commits this error when he details his own personal concerns with the late Laharpe; when he transcribes his correspondence with Mirabeau, relative to the then publishing edition of Voltaire's works; and when he gratuitously bestows on the reader twelve full pages of what he calls curious anecdotes concerning himself. 4. Some articles are evidently written with animosity or partiality. In the former respect, few readers will agree with the author that Marmontel's *moral tales are shabby little stories borrowed from others,* and that his *Belsarius is a dull romance, consisting of seventeen dissertations linked together*; and much less will it be admitted that the style of Condorcet is *heavy, prolix, and destitute of imagery and colours.* In the latter respect it will be equally difficult to concede that *no woman ever united, so well as Madame de Staël, an eminent character of originality with an astonishing extent and variety of knowledge*; and that *Chenier was the only man capable of replacing Voltaire in the tragic drama.* This last opinion will rather appear ridiculous to all those readers who happen to remember the neat anagram *rime chien* made on the name of M. J. Chenier by the ingenious editor of *La Quotidienne*, during the heat of the revolution, and the still more brilliant expression of the late emigrant Count of Rivarol, on the same subject,

Où Chenier foule aux pieds les cendres de Voltaire!

F. D.

Journal of the Iliad.

In the fortieth number of the Tatler, a journal of the time of the Iliad is begun, but never afterwards resumed. Pope also has marked the time of some of the books in the argument. But if we take what may fairly be termed the action, beginning with the muster of the army in the second book, and ending with the death of Hector, we shall find the time of it very much contracted indeed.

We will give a regular journal of that time, referring to the books comprised in each day:

Monday.—Jupiter sends a dream to Agamemnon very early in the morning.—He musters the army and they march to the enemy.—As they are on the point of engaging, a single combat is proposed between Menelaus and Paris; it is fought; the truce is broken, and Menelaus wounded by Pandarus.—The armies engage.—Pandarus is killed.—Æneas is saved by Apollo.—Diomed wounds Venus and Mars.—Hector leaves the field to sacrifice to Minerva.—Interview between Diomed and Glaucus.—Parting of Hector and Andromache on his return to the field.—Single combat between Hector and Ajax, which is terminated by the night.—In the night the Trojans hold a council, and agree to send an embassy to the Greek camp for a truce to bury the dead. II. III. IV. V. VI. and the chief part of VII.

Tuesday.—Truce acceded to. Part of VII.

Wednesday, Thursday.—Funeral rites performed and Grecian entrenchments finished.—Conclusion of VII.

Friday.—The Gods are forbidden to interfere in the battle.—The Trojans are victorious and drive the Greeks within their works.—The Trojans lie on their arms in the field all night, during which the Greeks send an unsuccessful embassy to Achilles.—And Diomed and Ulysses kill Dolon and Rhesus. VIII. IX. X.

Saturday.—Agamemnon repulses the Trojans till he is wounded: when the Greeks are again defeated and driven within their works, which are forced by Hector and the Trojans.—The Greeks are relieved by Neptune, who assists them while Juno lulls Jupiter to sleep.—Hector is wounded.—Jupiter restores him.—The Greeks are driven to their ships, which the Trojans are preparing to burn, when Achilles permits Patroclus to lead his troops against them, who at first is victorious and kills Sarpedon and others, but is at last killed by Hector.—A battle ensues round the body of Patroclus, in which they are successful till terrified by a shout of Achilles from the trenches; and the body of Patroclus is brought to the tent of Achilles, who weeps over it during the night.—The Trojans keep the field. XI. XII. XIII. XIV. XV. XVI. XVII. XVIII.

Sunday.—Thetis brings armour to her son.—He sallies to the combat; defeats the Trojans with great slaughter; drives them within the walls, and kills Hector. XIX. XX. XXI. XXII.

Thus the principal and essential action of the Iliad, which occupies twenty-one books of the Poem, comprehends exactly a week, of which three days are dispatched in little more than the same number of lines.

The first book, which is introductory only, comprehends twenty-two days; and the two last, which are supplementary, as the action concludes with the death of Hector, comprehend fifteen days.

Pope has made one day too much, for he says that the seventeenth book contains the evening of the eight-and-twentieth day, reckoning from the opening of the Poem, and that the eighteenth book is taken up by the latter part of the nine-and-twentieth day and the night ensuing, making a lapse of four and

twenty hours between the two books; whereas the same point of time is expressly marked, of the close of the one book and the opening of the other, by the first line of the eighteenth book,

Ὡς οἱ μὲν μάρναντο δι' ἄστεος πυρὸς αἰθομένοιο.

Literally rendered by Pope,

"Thus like the rage of fire the combat burns."

To the EDITOR of the LITERARY JOURNAL.

SIR,

Conquest, intermixture, and refinement change the language of the cultivated parts of a country, whilst the mountainous retain their ancient forms of speaking. Thus in Biscay the old Cantabrian, and in Dalecarlia the old Swedish still subsists; thus Wales and the uplands still speak their primitive tongues, whilst the English language is a gallimaufrey, or hodge-podge, of Saxon and French, Greek, Latin, Persian, Arabic, and Teutonic. The Saxon is now so intimately interwoven with the British and the French in the English language, that it is not always apparent what words are the exclusive property of the Germans, and what we have borrowed from the Greeks, Romans, and Oriental nations. In order to throw some light upon this subject, I shall set down some of the familiar words in our language which are in common use in Germany, and are not distinguished as Saxon in Johnson's Dictionary.

ENGLISH.	GERMAN.
Alarm.	Larmen, *to make a noise.* Larm, *noise, rumour.*
Booby.	Bube, *from the Greek* Βουπαις, *a great boy. This derivation has escaped all the etymologists.*
Boil, *a sore angry swelling, supposed by* Johnson *to come from bile, because it is pronounced bile; but bile is the pronunciation of beule in German, which we have retained with the word.*	Beule.
Bruit, *to bruit abroad.*	Ausbruiten.
Chandler, *means a dealer in corn, wax, tallow, or any thing else found in what is called a chandler's shop.*	Handler. Pferde-handler, *a jockey.* Spsibe-handler, *a lace-merchant.*
Dring, v. to dring, *to press.*	Dringen, *to press, to throng.*
Ear of corn. *This word has nothing to do with ear, the organ of audition, tho' confounded with it by* Johnson.	Aehre von corn. Aehrenleser, *gleaner.*
Freight, *lading.*	Fracht, *lading.*
Makewise, *to makewise, to pretend, to persuade.*	Weis machen, *to make any one believe.*
Pasty.	Pastete.
People.	Popel.
Restless.	Rastlos.
Strumpet.	Strumpf, *a stocking.* Blaustrumpf, *a blue stocking, or babler.* Der alles ausplaudert, *that bruits abroad all he hears. Hence Shakspeare's strumpet-wind and L'Estrange's common fame, as false, and as impudent as a common strumpet. Here is no idea of a prostitute, as* Johnson *erroneously supposed the word to mean.*
Thaw.	Thau, *dew.*

[*To be continued.*] S. W.

Further Account of La Harpe.

To the EDITOR of the LITERARY JOURNAL.

SIR,

The brief account of the late La Harpe in the ninth Number of your instructive Journal, deserves the more attention, as in a literary point of view he doubtless was one of the brightest ornaments of his age. I shall, therefore, beg leave to add a few observations, illustrative of his literary character, which, I hope, will not prove unacceptable to your readers.

On a fair and candid appreciation of his works I conceive, it will pretty generally be allowed, that although La Harpe was endowed with respectable talents both as an orator and a poet, yet his chief claim to distinguished fame must rest on the transcendant abilities he possessed as a literator. In this point of view he stands, in my opinion, single and unrivalled; but as he had not, most certainly, attained that eminence at twenty-five, Fontaines made no doubt a hyperbole in rating him, at that age, "on the pinnacle of literary glory."

His *Lycée* is a highly valuable composition, but unfortunately incomplete. The lectures he delivered at the Lyceum, an institution founded at Paris in 1786, by Montmorin, Montesquieu, and other amatems of literature, and, I believe, the only establishment of that kind which has weathered the storm of the revolution, form the basis, and *merely* the basis of that work. They, who have assisted at any of those lectures, will perceive with pleasure the high finish which he has given them, both in point of elegance of diction and elaborate research. It was with the utmost satisfaction I found the speech delivered by La Harpe, at the opening of the Lyceum, on the 31st December 1794, prefixed, by way of introduction, to the eighth volume of this work. The horrors of the French revolution, the scandalous sitting held at the Lyceum by the *sans-culottes*, and the horrid scene acted at the "Théâtre de la République," where the noted *Albitte* performed the part of a "blood-drinker," are depicted in that speech with a correctness of design and vividness of colouring unequalled by any similar attempt. From the manner in which the *Lycée* is mentioned in your Journal, such of your readers as are not acquainted with that work, may perhaps mistake it for an *universal* course of literature. I shall therefore observe, that it is confined to the literary productions of Greek, Latin, and French writers, and introduce to their notice La Harpe's last publication, omitted in your account.

The work I allude to is his "Correspondence Literaire," addressed to the late Emperor of Russia, before his accession to the throne, and to Count Schuualow, Lord Chamberlain of Catharine II. This eminent composition excited, at its appearance in 1801, the most lively sensation at Paris, not only on account of the frank, and frequently severe manner, in which the merits of many living French writers are discussed, but also from the author's confession of his

religious and political errors, which he recants with a simplicity and frankness, which do infinite credit to the character both of the philosopher and the man.

O. P.

Another Correspondent has favoured us with the following extract from the religious and political will of Monsieur de la Harpe.

"In this my last will and testament, I profess, in the face of the world at large, and in the sight of an omniscient and omnipotent Deity, that I die in the faith of the apostolical and catholic Church, that is alone able to save (repenting) sinners to all eternity in another life, to which I hope to be called at the general resurrection of the just and the unjust, the monarch and the peasant, at the last day. If at any time I have in the course of my life, said, written, or thought any thing against Christianity, or the divine author of it, I renounce it all from my heart with the sincerity of a true believer, and the unfeigned piety of one whose sole trust is in God, and his revelation by his only son Jesus Christ. Whilst I thus make full and perfect recantation of all the errors of my life, as well religious as political, I cannot but congratulate my countrymen, who have survived the wreck of a merciless revolution, upon the present government of France, and the great man that is at the head of it, who so well exemplifies in himself the nature of that empire, which is alone perfectly adapted to the genius of the French nation, I mean the monarchical; and that he may long continue his mission, who has rescued us from the anarchy of five kings to bring us under the power of one, is the wish of him who leaves the world in charity with all its inhabitants."

A new edition of the writings of La Harpe is said to be preparing by his friend Fontaines, which is to contain his valuable unpublished MSS.

Strictures on the Review of Tytler's Elements of General History, in our Fourth Number.

To the EDITOR of the LITERARY JOURNAL.

SIR,

Suspicion is not merely the infirmity of love or old age, but of too much learning likewise, which is sometimes apt to render its votaries too critically suspicious. The Greeks, indeed, in their accusation of St. Paul, carried the matter too far; nevertheless there is a kind of horror at imposition, which may be apt to distort a man's serious reflections, and make him see every thing in an inverted posture. It is no diminution however to the character of so great a man as Newton, that he was haunted by this phantom in the decline of his life and faculties: and Mr. Falconer has left another testimony behind him at his death, that man no more than woman is able to resist a charmer, which charms so sweetly with a specious promise of making us wiser than our fathers. The author of the article concerning Tytler's Roman History in your No. 4, p. 107, seems to have been not sufficiently sensible of the strange illusions sometimes produced by this cause under the sober garb of *rational criticism*; but which however will scarcely be thought very friendly to reason, if it be found at variance with grammar and arithmetic. He affirms, for instance, that Tytler stopped too short at *mere doubt*; for that there is *a clear and undeniable conviction of direct falsification* of the reigns of the kings at Rome, that seven of them should reign 244 years. I shall examine this pretended forgery at a future opportunity; and at present shall confine myself to a similar accusation, which he applies to the chronology of the later times at Rome, namely, *that it was not ascertained by any generally received authority of record or history.* In proof of this he produces two passages from Pliny. Concerning the *first* he affirms *that Pliny has made a mistake of 9 years in the date of so famous an event as the destruction of Carthage.* For he says, lib. 14, c. 4, that he reckons 230 years from that event to the dedication of his book to Vespasian in his 6th Consulate, which was A. U. 75. But the pretended mistake is in the writer himself, for Pliny does not deduce his 230 years from the destruction of Carthage; but from the death of the elder Cato, in the 600th y. of Rome, 8 years only before the fall of Carthage, therefore *nearly about* (circa) the death of Cato. "*Catonum illius primi—sententia indicanda est, ut in omni genere [vitium] noscamus, quæ fuerint celeberrima anno* 600 *urbis, circa captas Carthaginem et Corinthum, cum supremum is diem obiit, et quantum a postea* 230 *annis vita profecerit.*" Now the 600th year of Rome, according to Varro, was the 154th year before Christ, to which adding 75 after Christ, they amount to 229. So that at worst Pliny was only in an error of 1 year; and is not the writer in a similar error, by accusing him of 9 years of error instead of 8, in case the accusation had been well founded? Yet in fact Pliny is not guilty of an error of even 1 year; for some MSS. instead of *sexies* (the 6th Consulate) read *septimum*, which would make out the full 230. But it is immaterial which reading is the right; for the writer has made another sad mistake concerning the date of the dedication, which alters the complexion of the case. It was not addressed as he supposes, to Flavius Vespasian the father, but to Titus Vespasian the son, as appears from the contents of it. "Patri *pariter et equestri ordini præstas, prefectus prætorio ejus—quanto Tu ore* patris *laudes tonas! quanto fratris amas* (sc. Domitiani)—*Nos quidem omnes*, Patrem *te, fratremque diversus opere justo.*" Now the 6th Consulate of Titus the son could scarcely be as early as the 6th of his father in 75, and, in fact, evidence is still extant that it was not, nor sooner than 77, or 78; so that 230 years would be fully expired at the end of 76. Beside this, there is another passage in Pliny, which proves, that his book was not published until 4 years after the census made by Vespasian the father: and it is agreed by all, that this was in his 5th Consulate in 74, which brings down again the publication to 77 or 78, in the 6th Consulate of Titus. "*Accedunt exempla recentissimi census, quem* intra quadriennium *Imp. Cæsares Vespasiani pater filiusque egerunt.*" 7. 49. It is indeed true that the *census* seems to have been begun before 74, though finished in that year, in which Censorinus also places the *lustrum*: but as Pliny mentions its being completely past, he probably reckoned the 4 years from its end; and that he did so appears from another passage, where he fixes it to the year of Rome 828. "*Imperatoribus censoribusque Vespasiano, ann. cond.* 828." 3. 5. Observe here, that the 828 of Pliny was only the 827 of Varro, this latter being the year 74 after Christ. Censorinus confirms, that the *lustrum*, which closed the census was in the same year 74, the 5th of the father and the 3d Consulate of the son Titus. "*Lustrum, quod ab Imp. Vespasiano* 5, *et Cæsare* 3 *Coss. factum est.*" c. 18. By this we find also, that Titus was only in his 3d Consulate in 74, when his father was in his 5th. Therefore Titus could not be in his 6th Consulate, until 77 or 78, at which time and not before, the dedication of Pliny was penned, and his book published at full 230 years after the 600th year of Rome, when Cato died.

Your Correspondent's *second* misrepresentation of Pliny is, in saying, *that he has made an anachronism of no less than 35 years between the death of Numa and the Consulate of Cethegus and Pamphilus, at lib.* 13. 13. But how came he to know, that Pliny reckoned from the *death* of Numa, and not rather from his *accession?* Pliny's own words are "*Libros Numæ repertos fuisse Cethego et Pamphilo Coss, ad quos* a regno *Numæ colliguntur anni* 535." By what *undeniable* mark can it be proved, that *a regno* means from Numa's *ceasing* to reign, and not rather from

the *time of his first reigning*, or accession? At worst, if the words will bear one sense just as well as the other, why select that which is the most inconsistent with the computation? Now the accession of Numa was in the 714th before Christ, and the Coss. of Cethegus and Pamphilus was the 181st before Christ. So that on deducting 180, there remain 534 for the interval between them, as the ancients generally reckoned inclusively of the first and last. This wants only 1 year of the sum 535: but I have shewn above, that Pliny seems to have placed the foundation of Rome 1 year sooner than Varro, which would necessarily place the accession of Numa 1 year sooner, and thus complete the 535 years of interval. It is to be wished, that your pages should not be taken up with thus discussing ill founded criticisms. H.

ORIGINAL POETRY.

THE SAVOYARD'S RETURN.

Fond Memory dwells with renovated force
On scenes of youth, as snow-capt Alps I pace;
Fancy points out the well known streamlet's course,
And thro' the blue mist kens it's silver face.
Welcome, my native cot! my native vale!
Where erst I frolicked in the dawn of life;
Unfelt each thorn—for lucre's syren tale
Not yet had lured me to the haunts of strife.
Oft at the close of day, when evening's choir
Cra'lled to rest the drowsy ear of day,
I've join'd the dance, as, warmed with harmless fire,
Thrill'd my young breast, when breathed the oboe's lay.
Hail! blest retreats!—once more your sweets I taste—
The wayworn pilgrim of life's dreary waste!

Σ.

NOTICES.

Dr. Burney has a work in the press relative to maritime Discoveries in the Pacific, which may be expected in the spring.

Mr. Coxe is engaged in a new edition of his Russian Discoveries.

The Rev. Mr. Bowles will soon publish his interesting Poem on the Spirit of Discovery.

The following is the title of a book advertized in the last French papers:— *A Picture of Egypt, during the Continuance in it of the French Army*, with the position and reciprocal distance of the principal places in Egypt, a view of the political economy of that country, some details concerning its antiquities, and the exact procedure of Soleyman, the assassin of General Kleber. By A. G. Member of the Commission of Sciences and Arts sitting at Cairo.

Johnson's Rasselas has just been translated into French, by M. Louis, the author of several works, in particular of an Abridgement of the History of the Emperors.

M. Brumgarner, a bookseller of Leipsic, who had sent to the Emperor of Russia several copies of new and curious books, has lately been presented by his Majesty with a superb diamond ring.

A premium is said to have been lately proposed by that patriotic Prince to any man who shall introduce any improvement into the agriculture, the commerce, or manufactures of the empire.

Doctor Rudolphie of Greisfswald, who has just finished a journey undertaken for scientific purposes, in Germany, France, and Switzerland, has been appointed a member of the academy of Petersburg for the class of botany and anatomy; and is expected in that city early in spring.

Kotzebue's comedy entitled *Misanthropy and Repentance* has been translated into Greek.

It is reported from Petersburg, that the Marquis de Maymon, who has published for some time a Journal at Hamburgh, entitled the *Censor*, has been appointed by the Emperor Alexander, Secretary for the foreign correspondence to the Minister for public instruction, with a salary of a thousand rubles.

MANNERS.

IN our last two Journals, we have perhaps advanced as much on the subject of Routs as will be thought pardonable, for to offer objections to these amusements is in truth to oppose that vast majority, the fashionable world. It may yet, however, be somewhat excusable, if we venture to inquire by what means large bodies are brought together with so much facility, and what the inducements are, which prevail on mankind to associate in such numbers as to obstruct or prevent all the comforts and conveniences of social life; and why, in a review of past time, persons of distinction should so seldom have any thing to reflect upon but "the *pains* of a party of *pleasure*."

It may be supposed that the splendour with which the mansions adapted to routs are fitted up, has a considerable degree of attraction. But this we apprehend cannot be of very long duration. The ingenuity of our lamplighters is indeed praise-worthy, but it is limited; and we observe accordingly that when the historians of routs have told us that "the lamps were tastefully disposed in stars, cyphers, and festoons," their powers of description are at an end, and they can do no more for a whole season than repeat the same encomiums in the same words. With regard to the more inviting circumstances which appeal to the palate, we are afraid, if our information be correct, that the gratifications of appetite do not enter much into the consideration of those who give, or who partake of routs. There is a rule, however, observed in these entertainments which has led to a degree of rivalship that has made some noise in the world: it is this, that the rarest productions only shall be produced: and here we cannot avoid mentioning a strange blunder in our most fashionable historians of routs, who, we shrewdly suspect, seldom are allowed to approach nearer than the porter's premises; they constantly tell us that the beaufets, side-tables, &c. were covered with a profusion "of every thing the *season* produces," whereas visitors know well that the reverse is the fact, the viands consisting of "every thing which the season *does not* produce;" and hence that proud rivalship, and ambitious contest who shall exhibit the greatest number of summer fruits in winter. Hence, too, those very edifying and interesting narratives in which we are told that at one rout there was a dish of green peas which cost ten pounds, and at another, there were five hundred cherries at a guinea a piece.

What attractions these may have, is a question on which we are unwilling and perhaps unable to enter. Having, however, sometimes had the honour of anticipating the luxuries of the seasons, we must candidly acknowledge that to the best of our appetite and taste, fruits produced in winter, by means of the hot-house, have no superiority over those which na-

ture affords with so liberal a hand at her own proper time. The preference, therefore, must arise from something extrinsical, and this, with due submission, we take to be the *price*. Apricots or cherries at a guinea a piece, do certainly contain a quality which richly entitles them to distinction, by keeping "little people" at a distance, and defying them to an imitation of what they must ever be incapable of procuring.

Still, however, something must be found more attractive than the glare of lamps, or the scarcity and price of fruit, and this will probably be found in the *employment* which principally consumes the time passed in those entertainments. The consideration of this would lead us into a very wide field of discussion both historical and moral. A few remarks only may suffice for the present opportunity.

We shall, in the first place, lay it down as a position to which very few exceptions can be made, that CARDS are the universal bond of fashionable society, in all countries where there is any institution, or association which may be termed *fashionable society*. The history of cards, therefore, would be important in the history of Manners, if in fact it were not defective in all those particulars which illustrate manners. They are said to have been invented about the end of the fourteenth century, for the amusement of a king of France, who had fallen into a melancholy disposition. The inventor proposed, by the figures of the four suits or colours, as the French call them, to represent the four classes of men in the kingdom. By the *cœurs*, or hearts, are meant the *gens de chœur*, choirmen or ecclesiastics, and therefore the Spaniards, who certainly received the use of cards from the French, have *copas*, or chalices, instead of hearts. The nobility, or prime military part of the kingdom, are represented by the ends or points of lances or pikes, and our ignorance of the meaning or resemblance of the figure induced us to call them *spades*. The Spaniards have *espadas*, swords, in lieu of pikes, which are of similar import. By diamonds are signified the order of citizens, merchants, or tradesmen, *carreaux*, (square stones, tiles, or the like:) The Spaniards have a coin, *dineros*, which answers to it, and the Dutch call the French word *carreaux*, "streenen," stones and diamonds, from the form. *Trefle*, the trefoil-leaf, or clover-grass (corruptly called *clubs*) alludes to the husbandmen and peasants. But how this suit came to be called clubs is not easily explained, unless, borrowing the game from the Spaniards, who have *bastos* (staves or clubs) instead of the trefoil, we give the Spanish signification to the French figure.

The history of the four kings, which the French, in drollery, sometimes call the *cards*, are David, Alexander, Cæsar, and Charles, which names were then and until very lately, on the French cards. These respectable names represent the four celebrated monarchies of the Jews, Greeks, Romans, and Franks under Charlemagne. By the queens are intended Argine, Esther, Judith, and Pallas (names retained in the French cards,) typical of birth, piety, fortitude, and wisdom, the qualifications residing in each person. *Argine* is an anagram for *regina*, queen by descent. By the knaves were designed the servants to knights (for *knave* originally meant only servant;) but French pages and valets, now indiscriminately used by various orders of persons, were formerly only allowed to persons of quality, esquires, *escuires*, shield or armour-bearers. Others fancy that the knights themselves were designed by these cards: because Hogier and Lahire, two names on the French cards, were famous knights at the time cards were supposed to have been invented.

Such is the *history* handed down to us of this wonderful invention; that it is meagre and unsatisfactory cannot be doubted, for what card-player would give himself a moment's concern in tracing the clubs, spades, hearts or diamonds to their primitive significations? In truth, if we had not thought some of our younger readers might probably be pleased with the above anecdotes, we should have been ashamed to transcribe what must now be neither an object of curiosity nor utility. It is, however, important to observe that the reason of the invention, or what called for it, was the king's "melancholy disposition." Whether he was cured by these little slips of painted pasteboard, we are not told, but it is certain that the story may be believed, because the same cure seems to have been prescribed since his time in all similar disorders. But we are ready to confess, that the success of the remedy has not always been infallible. Unfortunately for persons of a "melancholy disposition," there are times when human beings can neither shuffle nor cut, when the possession of the odd trick affords no alleviation to uneasy thoughts, and even when mere bodily pain will not be conjured away by the four honours.

What game was first invented for the amusement of the French monarch we are not told. With respect to the cards representing the "four classes of men in the kingdom," we can only conjecture that his physicians may have wished to instruct him a little in the nature of the people he had to govern, as children are now taught geography, history, and even music by dissected maps, and scales, and *te-totums*; so pleasant may instruction be rendered!—In the process of time, however, many games were invented, and became more or less fashionable according to the reigning whim. There are few small towns in the kingdom, in which we are not told of very important revolutions in these matters. In one, it is remembered, that "forty years ago every body played quadrille, but now every body plays whist," and in another, you are told that by some sudden convulsion in taste, the rubber disappeared, and the pool succeeded, and still maintains its ground. In most places the young seem to adhere to whist, while their seniors, and especially single ladies of a certain age, "who have seen better days," preserve their allegiance to quadrille with the most persevering fidelity, and day and night invoke the gods of their idolatry, Spadille, Manille, Basto and Punto. Quadrille, by the way, appears to have been introduced, or at least to have become very fashionable in this country, about the beginning of the last century. To some, it is said to recommend itself, by not confining the tongue so much as whist, and this must certainly be an object of importance to those who take no other opportunity of conversation, than when they can join it with business, and when senti-

ments may be heightened, and narratives illustrated by casual turns of good and bad luck.

The other games which have arisen from the prolific discovery of the ingenious Frenchman are PIQUET, reckoned very genteel and somewhat dignified, but not very common: the *Pique*, *Repique*, and the *Capot* are not words for ordinary mouths:—QUINZE LANSQUENET, which has degenerated among the *mediocre* parties so far as to be known by the name of *Lambs-skin-it*, in which respect, however, we do not think it deserves to be turned entirely "out of the best company," since it is notorious that whist, so great an engine of property and social order in St. James's-street, is frequently played under the disguise of *whisk* in the city, and in sundry provincial towns. —PHARO is a game of late invention, and is indeed but a modification of Basset, which was much in vogue about the beginning of the last century. Pharo is however now a very genteel game, because it is played "by the first people with the first people," and because the *first* estates, and the *first* quantities of ready money ever scraped together, have yielded to the gentle seductions of a Pharo-Banker. Some of these bankers, it appears by the records of the courts of law, are Countesses of high rank, and the late Chief Justice Lord Kenyon, on a certain occasion, was so rude as to threaten some of those ladies with the pillory. But his lordship, it would appear, was not sufficiently familiar with the manners of high life, and did not make proper allowances. If he had received a more *liberal* education (for in truth he rose entirely by *merit*) he would have known that no rout can be complete without one of these banks, or, what we have next to mention, the ROUGE ET NOIR. This is a very modern game, and, we believe, borrowed from our instructive neighbours, the French, from whom, of late years, we have received many equally profitable lessons in manners, morals, and politics.—To these may be added the less notorious games of CRIBBAGE, MATRIMONY, CASSINO, CONNEXIONS, &c. CRIBBAGE is usually recommended in the original intention of cards, "to dispell melancholy." It is found to be very useful in fits of the gout, in which case, in the country at least, the apothecary is the partner, and we have known it *taken* with advantage in cases of the last extremity. A few years ago, a lady of some fashion, in her seventieth year was warned, by certain symptoms, of her approaching departure from this life. During her sickness, cribbage was her only comfort, and as it could be played, sitting in bed, afforded her many of those departing consolations which card-players only can experience. The disorder increased, and still she moved the pegs, and still she watched for a sequence or a flush, and still she counted his nob; at length one day she played eleven games, and died two hours after, retaining the superiority of the crib to the last!

Of the games now enumerated, the *Pharo*, and *Rouge et Noir* are by much the most fashionable, although there are tables also for whist or quadrille, but it is so far more genteel to risk money at the former, that the stream of a rout may be observed to flow perpetually towards the Bank. Of the mysteries of these games the public have heard much, and that able and ingenious writer Hoyle may tell them more. They form one of the chief attractions of the Rout, and when we consider the general predisposition towards gaming, will pretty well account for the hundreds who assemble on such occasions, and for whose assembling no other reason can indeed be assigned. They are also introduced in some instances, at what are called Sunday concerts. The *bills* hold forth Handel and Sacred Musick, but here, as in the theatre, musick is only the vehicle of a species of dialogue which would not *go-down* without it. Perhaps too, it may be introduced as martial musick is in battle, not only to give courage to the army, but to drown the cries of the wounded and dying.—Thus far we have collected a few particulars of the history and present state of that irresistible attraction which has contributed to render parties tumultuous, and to change what was formerly a company into a Rout. The reflections which naturally arise from this view of the subject, will afford materials for a future paper.

R. S.

POLITICS.

THE question of peace or war is one of so much importance that it naturally engrosses the curiosity and conjectures of the nation. While, however, we are informed by government, that the actions and the apparent intentions of a neighbouring nation render extraordinary means of defence necessary on our part, we are left so completely in the dark with regard to the nature or the proofs of that hostile disposition, that all conclusions concerning the chance of war or peace must be very uncertain. One class of speculators, to whom the change of government in France has been an unceasing object of terror and hatred, regard that disposition as hostile in the extreme degree, and at the same time united to principles so detestable, that, either by secret perfidy or open enmity, the new government of France can never cease to machinate the destruction of this country. These persons, of course, regard the more plain expressions of the warlike temper of the French government used at present as only a proof that they consider themselves more in a condition to strike a dangerous blow at this country than when they consented to make peace, and that the only thing which can save us from their designs, if salvation be yet in our power, is immediate war,—war to be carried on with energies and sacrifices, such as we have never yet had occasion to try.

Another part of the community, reflecting on the new form of the French government, so dissimilar to that of the surrounding states, the contrariety between the temper and principles of that government and the old governments of Europe, and the extreme irritation which had been kindled between France and several of those old governments, did not look for any cordial intercourse, any very secure connection to be established among them for some time to come. A storm unexampled both for fury and duration had agitated the ocean, and it was not till after some interval that the rolling of the billows would com-

pletely cease. They conceived however that experience had now taught the leading nations how much their interests depended upon peace, and were necessarily injured by war. They conceived accordingly, that the wise men in all countries would sincerely unite their efforts to maintain this salutary situation of affairs; and they hoped that these were a sufficient number in all the great states of Europe, to give the turn to public opinion. They were thus induced to conclude that forbearance, if not benevolence; civility, if not friendship, might be upheld for some time between these contentious neighbours; and that this temper would in time make way for a better.

Of this latter opinion we confess ourselves to have been; and in spite of all the contrary appearances which have yet occurred, we cannot prevail upon ourselves to alter it. It is the interest in so extraordinary a degree both of France and of Britain to remain at peace, and the truth of this proposition appears to us so visible, that we cannot believe it possible that folly should so far prevail over wisdom in these enlightened countries, as to hurry them into hostilities against one another. It is not in point to object the follies of the revolution, because there passions blinded and misled which now have no place.

What is it that either Britain or France can propose to gain by attacking each other? At present the two foremost nations upon the face of the earth, and almost equally powerful, what is it they can have to desire, but to improve their respective advantages? Is either of them so mad as to suppose that it would improve these advantages the faster by taking the other out of the way? They have nothing to fear except from one another; and can they not be contented to go on in company to the summit of prosperity? will it not suffice each, if it can reach this summit itself, unless it can prevent the other? Yet it would seem as if providence had planned out the different fields of their respective greatness with peculiar design to cut off the means of competition Not only is it on different elements that the power of each is manifested, but they are placed in a situation in which the one cannot make any serious impression upon the power of the other. While the one predominates on land, the other enjoys a pre-eminence, more important, more undisputed, and more extensive in its effects, at sea. And while it is acknowledged that all the power of Britain could make little impression on the territory of France, it is equally out of the power of France to contend with our fleets, or to endanger that security of which these are the bulwarks, and the arms of Britons the defenders.

It is certain, however, that both nations accuse one another of designs inconsistent with the welfare of each other, and with the peace of Europe. The French rail at the English as exercising a maritime despotism, and insolence over the other states, to which it is a disgrace for them to submit; and as wanting again to embroil the nations for the benefit of commerce, which in time of war the superiority of our fleets, they say, enables us to engross from all the other countries of Europe. The accusations on the other hand with which we charge France, are an insatiable ambition, which makes her wish for the dominion of Europe, and a peculiar rancour against this country, which makes her long for its destruction.

As for the imputations upon the peaceful disposition of England, little needs to be said. The grounds of the first charge, the particulars of what they call our maritime despotism, or the privileges of our flag, are of no disadvantage to others, and probably of very little advantage to ourselves. At any rate we have no occasion to go to war for them, because we enjoy them. The other accusation, that this country, or any other country should go to war to augment its commerce, is so destitute of all reason and common sense, that we could not have conceived it to be advanced with sincerity, were we not acquainted with the extreme ignorance respecting commerce, and the causes of the wealth of nations, which prevails among the greater number of the writers of France. That a nation might go to war, and have reason to go to war to obtain a new advantage for its commerce, or to recover an old, as the removal of prohibitions of importation, is very possible. But that a nation should go to war for the effects of commerce wrought by the operation of war, should think of encreasing the produce of its industry by withdrawing the best of its hands from exercising that industry and great part of its capital from maintaining it, by turning too a great part of that capital from maintaining the agriculture and manufactures of its own country to maintain the agriculture and manufactures of other countries, would be a most extraordinary policy. War is injurious to this country in two ways: 1st, it destroys a portion of its capital; and 2d, it turns another portion of that capital out of a channel more advantageous into one less advantageous to the country. It turns into the carrying trade an extraordinary portion of the capital of the nation, and this it withdraws from the agriculture and manufactures of our own country, to carry on the agriculture and manufactures of other countries.

France will not so easily defend herself from the charge of inordinate ambition, and even of senseless animosity against this country. Switzerland, and Italy, and the gasconading expressions of the First Consul himself, speak pretty loudly in defence of these accusations. It is not unnatural too that the military success of the French should have begotten presumption in the nation, and still more in their chief governor, whom war has made, and who seems more in his element conducting an army than directing the legislation of a great country. And he does not appear to possess a wisdom which renders it impossible that he may think of extricating himself from the difficulties in which he is known to be at present involved, by an attack upon this country.

Taking the most unfavourable supposition, the verifying of which is so much to be deprecated, that war is unavoidable, let us speculate a little concerning the effects of the renewal of the contest upon both France and England.

It is not likely that greater exertions can be required from us than the unprecedented ones which we made in the last war. Now the effect of that war, expensive as it was, was only to retard the progress of

our national wealth. It was so far from diminishing our national wealth, that it did not even stop its increase, it only made that increase go on somewhat slower than it otherwise would have done. It is beyond a doubt that both our commercial and agricultural capital was augmented during the last war. Both the price and the rent of land rose considerably; the value of our imports and exports rose beyond all precedent; and the old duties, even in spite of the heavy load of new ones on almost every article of home consumption, increased instead of diminishing. Another most decisive proof of the same thing is the improved condition of the people, who, from the common labourer to the highest peer, are in more affluent circumstances than they were ten years ago. And for this fact we appeal to the recollection of every judicious man in the country.

That the expence of the late war was greater than there is any probability that of the one with which we are threatened would prove, we think will not be disputed. At that time circumstances led our government to conclude that an impression might be made on the territory of France, and they expended immense sums to accomplish that object. Now it is probable that the persons who can be entrusted with the management of our affairs, will be wise enough to relinquish that hope. We shall be put to the expence of a fleet powerful enough to command the ocean, and to sweep the foreign commerce of all nations into our ports. We must submit to the expence of a moderate force to secure our coasts from the very unlikely chance of a force of any magnitude being landed on them. But does France imagine that all this expence can oblige us to trench upon our capital? that the surplus produce of the agriculture, manufactures, and commerce of this country is not much more than sufficient for this burden? that this burden can even prevent us from adding to our national stock? that it shall not enable us at the same time to harass the coasts of France, to burn her towns, and her shipping, to seize the permanent possession of a number of naval stations, which will give us a still more proud superiority over her, and the other nations, than even now we possess?

Some people, indeed, are afraid of an invasion; but undoubtedly with very little reason. Let us first consider the many chances against the landing of any considerable force in this country with the superiority and vigilance of our navy. Let us next consider the many advantages which a force on its own territory has against a landing force. Let us allow something too for the valour of Britons fighting for their unparalleled advantages. Let us suppose, however, what is next to impossible against so many chances, that the French have landed as great a force as they please, and let us remember the advantages which the French themselves possessed on their own territory against an invading enemy. Let us chiefly consider them set down in an enemy's country with the unspeakable disadvantage of being cut off completely from their own, and debarred both from supplies and reinforcement. All that in such a case we should have to do would only be to stop their march, and they must be ruined in a few days. That such an event would throw us into considerable commotions is not to be doubted; and would probably retard the mercantile transactions in our ports; but it would very little affect the industry engaged either on our soil, or in our manufactures, over the great part of the kingdom. And it is not to be feared but that this country "would soon expel her mischief, and purge off the baser fire, victorious."

It is to be considered too, as a point of the greatest consequence, that the temper with which the people will engage in the war with which we are threatened at present, will be very different from that with which they engaged in the last. The object, and motives of the last were ambiguous, and in the eyes of the people, suspicious. The idea of warring against French principles was too refined a motive for them. They believed that the war against France was a war of the higher orders against the lower. They fought in it therefore with reluctance, because they believed they were in some measure fighting against themselves. In the war which threatens us the object is plain and simple, and the motive is one which will not fail to make a due impression upon the hearts of the British people. We shall fight to repel insolence, and unjust requisitions. The character too of the man to whom the eyes of the nation are turned in the case of a rupture may be a subject of intimidation to France. We are not any of the frantic adulators of Mr. Pitt, who have disgraced and hurt him in the estimation of every sober-minded man. We neither consider him as the first man, nor the first minister, whom this country has produced. But we think well enough of him to suppose him capable of profiting by his errors; and we think that he has acquired such experience in the business of carrying on war, that if he be called to conduct another, he will do it with other wisdom than he displayed in the last. Undoubtedly he judged ill, as he himself is now said to confess, of the French revolution, and of the means of defence against its dangers. But at this moment, with a plain object before him, which unites the hearts of all his fellow subjects, he knows, better than any other man, the best mode of drawing forth the resources of this country, and of applying them with the greatest effect to the annoyance of France.

If, then, even the last war was unable to stop the progress of prosperity in this country, and if it be out of the power of France to force us to such exertions and such sacrifices as we then made, what can she expect by commencing hostilities against us? She may fight with us for ever, and the prosperity of our country will go on; but considerably slower than it would do if we enjoyed the blessings of peace.

But what was the case with France during the last war? Did her prosperity go on? Did her agricultural and commercial capital increase? Was the condition of all the classes of her inhabitants ameliorated? Terribly indeed are these circumstances reversed in her case. Language can hardly express the exhausted state in which that war left her; not only her circulating but her fixed capital was destroyed, and nothing was left her but an excellent soil, and a great population, without however any thing with which to cultivate the one, or to employ the other. From knowing

what took place in France, the conclusion is almost infallible that such must have been the effects. But it is established by abundance of positive facts.

We begin with agriculture.

"One is overwhelmed with grief," says the author of *Considerations sur l'Organisation sociale*, published a few months ago, "on travelling through France, to observe the deplorable state of our agriculture, as well as the wretched condition of the inhabitants of our finest provinces. Almost every where the devouring hand of the treasury carries off the sources of improvement, whilst a blind prohibitory system prevents the natural means of production, and deprives both the proprietor and the cultivator of the soil of all disposable revenue. Hence it arises that in the provinces which produce the finest wheat, the people are reduced to live on bread made of black corn, of barley, oats, and the coarsest grains; that in the provinces which produce the finest wine, the cultivator can use nothing but water, or a sour unwholesome liquor made from the refuse of the vintage; and that the generality of the inhabitants, reduced to the severest parsimony, are ill-fed, ill-clothed, ill-lodged, and oppressed with excessive labour."

"Throughout all Europe," he continues, "the inhabitants of the country obtain food as much as they can eat, except in France, in the finest provinces of which they are six months in the year without knowing how they shall live on the morrow, and where their food as well as their cloaths are unwholesome, no less than mean. What dirtiness! what wretchedness, both in the persons and in the houses of the peasants! Their extreme poverty degrades these wretches, it multiplies a hundred fold their sufferings in the cold season, in the hot season, in the time of disease, and impairs the growth of all their powers, physical, moral, and intellectual. What a difference between their lot, and that of the husbandman in England, in Switzerland, or in Germany!" &c.

"Every thing in France," says he, again, "proclaims the want of capital and of industry."

"The high roads deserted.

"The inns horrible.

"The houses going to ruin, both in the country, and in the cities.

"Crowds of idle people.

"The cattle wretched.

"Agriculture, in general, detestable.

"A languishing commerce.

"The want of credit.

"Harbours without ships.

"A people ill-fed, and ill-clothed.

"Roads, in particular the bye and cross-roads, impracticable.

"The causes of all this are the vices of our political institutions; and the consequences are the poverty of the proprietors, the misery of the labourers, the ruin of the leaseholders, and the weakness of the government."

These descriptions, of undoubted accuracy, are surely striking. We will adduce a few facts, still more decisive.

Mons. de Forbonnais estimated the neat produce of the territory of ancient France at 32 millions sterling nearly. Lavoisier made it by his calculations amount to 50 millions, and citizen Ramel asserts, that in this calculation was not included the rent of houses and buildings. We desire the attention of our countrymen to the next fact, which we are about to mention. The minister of finance, Gaudin, in his report to the Consuls, on the state of the finances in the years 8 and 9, states, that, according to the documents which had been transmitted to him, the whole territorial produce of France, including the new acquisitions on the left bank of the Rhine, amounts to little more than 35 millions. The produce of the new acquisitions on the left bank of the Rhine is computed at a fifth of the whole produce of France. With this fifth part added, the agricultural produce of France, as she is now augmented, falls more than 15 millions short of what it was under the old government, and within the old boundaries. Such have been the effects of the last war, and of the revolution, upon the agriculture of France, while the agriculture of England was receiving large encrease.

Let us place in contrast with this, the territorial produce or income of Great Britain, as calculated for the imposition of the income tax.

Landlords' rents	£25,000,000
Tenants' profits	19,000,000
Tythes	5,000,000
Mines, Timber	3,000,000
Houses	6,000,000
Scotland ⅛ of England	7,000,000
	65,000,000

According to this statement, the territorial revenue of England and Scotland, without including Ireland, exceeds that of the whole of France, including her newly acquired dominions, 30 millions sterling annually. The rents of the landlords in Ireland, are on good evidence, computed at 12 millions. and if we allow the same proportion for tenants' profits, tythes, mines, and houses, as in England, this raises the territorial revenue of Ireland to 24 millions. And thus the neat produce of the land of Great Britain and Ireland exceeds that of France 54 millions annually, without including a single inch of our transmarine dominions; and is 19 millions more than double the produce of all France.

We shall continue these details respecting the comparative state of France and Great Britain, in our next.

THE PARLIAMENT.

What has chiefly distinguished the proceedings in both houses, respecting the intimations of warlike measures in France, is their perfect unanimity. Indeed, with all the official light which they have yet received on the case, it is impossible they should not be unanimous. For it was only necessary for every man to declare, that he would support his country in a war, if causes of provocation which he thought adequate were offered. Who could avoid saying this? Accordingly there has been no debate. Some speeches have been made, in which patriotic sentiments were uttered. Among these that of Lord Moria in the house of peers has been particularly distinguished, and that of Mr. Sheridan in the house of commons. The sentence, in the speeches, which we thought the most remarkable, was the following in one of Mr. Fox. "The peace," he asserted, "did us good, though war might again be renewed. It freed us from pernicious encumbrances; he did not mean, our allies—we had none; but from the principles, the accursed, and abominable principles upon which the last war had been carried on; the infamous, the hy-

pocritical affectation of fighting for religion and morality." We could not but take notice that this sentence, for which the author would have been (we had almost said) hissed out of the house a few years ago, passed with a few feeble *hear, hears!*

Lord Castlereagh on Monday presented the East India budget, which exhibits most flattering results respecting the state of the company's affairs. We shall have occasion to refer to it more particularly hereafter.

NOTICES.

France.—It is known that in consequence of the instructions of government the prefects of the departments are employed in drawing up statistical accounts of the territory under their jurisdiction. These are transmitted, when finished, to the minister of the interior, and a great number have been already received. Some specimens have been published, and orders have been given by the minister for the publication of all the memoirs as they are received. If they be executed with tolerable fidelity, of which we shall soon have proof, they will furnish a most valuable collection of facts, and will compose an important national work.

In co-operation with these labours of the government, a number of persons of eminence have formed themselves into a society, for the purpose of advancing statistical knowledge, and diffusing a taste for its acquisition through France. The first meeting of the society was held in the month of January last. They have elected for their president Montelles of the Institute, Degenettes for vice president; and for perpetual secretary, Ballois, the lawyer, and author of a work entitled *Annales de Statistique*. The society resolved, too, for the sake of regulating their labours, to appoint several committees, among which the different branches of statistical enquiry will be divided. They are likewise about to institute, after the example of the German universities, a public lecture, or course of instruction, on this important subject.

Several plans have been offered to the French government for the restoration of the port of Antwerp, and it is confidently reported that the following has at last been approved of. It includes four leading particulars; 1st, The removal of the bar at the mouth of the harbour, which will give free admission to ships of 600 tons; 2d, The clearing of the harbour, and the rebuilding of the quays; 3d, The erection of arsenals, founderies, and ware-houses of all kinds, both for mercantile ships and ships of war; 4th, The erection of a dock-yard for the construction of vessels of war, such as sloops, corvettes, and frigates. It is added, that immediately after the visit of the First Consul to Antwerp, this scheme will begin to be put in execution. Its effects will no doubt be great, and Antwerp, which was once the first commercial city in the world, may, if absurd regulations do not interfere, become again the magazine of mercantile communication to a great part of Europe.

Austria.—Extract of a letter.—"The changes which have taken place in the war department have already produced happy effects. Every thing proceeds with equal dispatch and precision, under the direction of the hero to whom the Austrian monarchy owes this new blessing. Other changes and reforms are preparing, which will still further prove the formal, and steady resolution of our government to abandon that old routine, of which it has been accused, and to adopt new modes better adapted to the actual state of things in Europe. The aulic chancellery of Italy is to be dissolved, and on the 16th of this month (February) the re-union of the affairs of our Italian provinces to the departments of the hereditary states will take place. The government of Venice, which has hitherto been only temporary, is to be installed, as permanent, on the 12th. The Venetians are making great preparations to celebrate this event.

"A letter from Moravia gives us intimation of a new measure adopted by his Royal Highness the Arch-duke Charles as minister of war, and which tends to perfect still more that essential part of the government. The young officers must apply themselves to the study of mathematics, and repair to the cities in which there are schools of that branch of education, as well as of artillery. These officers will preserve both their pay and rank, and be promoted in their turn."

The subject of this last piece of intelligence is a circumstance of great importance; as the ignorance of the Austrian nobility has hitherto been very gross; and it is absurd to expect, unless their education be greatly amended, that they can cope in the art of war, or in any thing else, with the more accomplished inhabitants of the other parts of Europe.

Germany.—We have already mentioned the edict respecting religious toleration published by the elector of Bavaria. His example has been followed by the Duke of Wirtemberg, who in the preamble of his edict expresses himself in the following manner:

On attending particularly to the states which have fallen to us by the plan of indemnity, it could not escape our notice that there are some of them in which all those who profess a religion different from the predominating one are excluded from several of the privileges and rights of citizens. Convinced by experience that such institutions are injurious to the industry, to the improvement, and to the well being of our subjects, regarding it as our duty, and making it one of the first objects of our care to disseminate in our new possessions the spirit of true Christianity, and of universal toleration, which is inseparable from it, we declare the exercise of all systems of Christian belief, and all forms of Christian worship to be free; we maintain in the possession and enjoyment of their effects, the churches as they at present exist, except those subject to the act of secularization; we call to the participation of all the rights of citizens all who profess the Christian religion in any form, without permitting any distinction to be made in the election to offices on account of any man's religion, or any consideration but that of talents and personal merit.

This proclamation concludes with solemn exhortations to the people at large, to the clergy, and to all magistrates and officers of the state, to cultivate toleration and brotherly love.

The elector of Bavaria is not insensible to one of the most important concerns of civil society, education. It is stated in a French periodical paper that a code of instruction for youth has just appeared at Munich.

Italy.—The relaxation of the severities of the Catholic religion is going on with rapidity in the countries the most devoted to it. The following is an instance in Italy:

The Archbishop of Genoa has granted permission to the people in his diocese to use flesh, eggs, and milk during Lent except on the first four, and the last four days, and on the Friday and Saturday of every week.

A fact lately took place at Naples, wonderfully expressive of the wretched situation both physical and moral of the lower orders in that fine country. A project for extirpating the trade of beggars in that city and the neighbourhood had been executed, by confining all who had been accustomed to practise it. Six thousand one hundred were taken up, and the city seemed to be delivered from that disgusting and mischievous traffic; when on a sudden a new cloud of its practitioners appeared. It was found that this was the effect of a resolution of the parents to abandon their children, and oblige them to beg, that

they might thus be put in confinement and maintained by the public. To repress this abuse the king has been obliged to publish an edict, by virtue of which all persons guilty of such offence shall be imprisoned, and confined to the fare of criminals.

Russia.—The finances of Russia are improving every day; all payments are made with the utmost exactness; and the course of exchange has turned in favour of that country astonishingly since the death of Paul.

TO CORRESPONDENTS.

*** *We thank* H *for some further ingenious remarks on the words* "pionied and twilled," *but fear that the interest which such a discussion is likely to create, with the generality of our Readers, is too confined to allow the insertion of so long an article.*

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*** The Materials for this Volume were collected by the Author during a Residence of upwards of three Years on the Island.

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Leeds, March 5th, 1803.

NUMBER 12.] THURSDAY, MARCH 24, 1803.

PHYSICS.

I. *On the Senna of Commerce.*

In a report made to the National Institute of France on a tour to Upper Egypt, above the cataracts of Sienne, by Dessessartz, and Ventenat, we find several particulars respecting the *Senna*, a drug very commonly employed as a cathartic, both in Britain and on the Continent.

Nectoux, one of the philosophers who accompanied the French army in Egypt, had in charge to observe the agricultural state of the country. The plants of course which are cultivated in Egypt naturally drew his attention, and among these the Senna was particularly interesting, as all Europe is supplied with it from Alexandria.

He inspected all the magazines of Alexandria and Cairo, and found not only the two kinds already known, but likewise a third plant mixed with them, the leaves of which have a great resemblance to those of the true Senna. He visited with great care the environs of Alexandria, Rosetta, Damietta and Cairo, but could not find a single Senna plant growing in the whole Delta. Senna therefore is called *Senna of Alexandria*, not because it grows in the neighbourhood of that city, but because Alexandria is the general magazine where it is collected, and from which it is transported to Europe.

He was informed by the merchants that it was to be found vegetating in the valleys of Sienne. Thither he accordingly went, and was lucky enough to find the plant both in flower and in fruit. Encouraged by this success, he did not stop his researches, but in spite of every obstacle thrown in his way, either by the climate or the inhabitants of the country, he visited every spot where there was any probability of finding Senna.

He first collected the *Senna Belledy* in the desert near Bassa-Tine, two leagues from Cairo. He found it more abundant on the left bank of the Nile opposite to Fallach, as well as in the neighbourhood of Darao. The good Senna, and the *arguel*, a kind of *cynanche*, grow most abundantly, and in the highest state of perfection, in the valley of Basabras, or of Nubia; from which it is brought by caravans to Darao and Sienne, to be afterwards transmitted to Alexandria. In the mountains, three days journey above Sienne, the *guebelly*, the Senna of the Thebais, and the arguel are found. In these places the good Senna guebelly and the arguel receive no more culture than the belledy; though this last is considered as wild.

The plants grow spontaneously in groups. There are two crops, the abundance of which depends upon the duration of the rains, which it is well known are periodical. The first crop is the most plentiful, and is gathered at the end of the rains or about the middle of September; the second crop is collected about the middle of March. The plants after being cut are exposed on the rocks to the sun till they are quite dry. The guebelly and arguel are mixed together; but the belledy is not found in Nubia, and is only added after the cargoes have been brought to Sienne and Cairo. The produce of the two crops varies from 700 to 1100 cwt. a third of which is arguel. The sale amounts to 1400 or 1500 cwt. Hence the Senna is obviously adulterated in Egypt by being mixed with other plants. Among the foreign plants, the leaves of the *colutea*, and of the *box*, may be perceived in considerable quantities.

The older botanists distinguished the two species of Senna by the terms *foliis acutis* and *foliis obtusis*. Linnæus united them together and considered them merely as varieties. Lamark makes two species of it, the *cassia lanceolata* and *cassia senna*. The observations of Delisle and Nectoux establish the difference between these species. The cassia senna is distinguished from the cassia lanceolata, not only by the obtuse leaves, but also by the stipulæ, which are longer and lance shaped, and by its bent pod, having on the middle of each face projecting ridges.

We suppose, though the report of the commissioners is somewhat confused, that the guebelly of Nectoux is the *cassia senna*, the belledy, the *cassia lanceolata:* the third plant the arguel, or Senna of Mecca, he considers as a species of cynanche. From the analysis of Bouillon La Grange, it appears that all these plants yield nearly the same products to water and alcohol, but the arguel less than the other two. As the Senna of Commerce is a mixture of all the three, particular details would not be attended with much practical utility. Nectoux proposes to transplant the senna plants to St. Domingo, where it may be cultivated, he says, in places abandoned by the planters.

II. *On the Double Refraction of Rock Crystal.* *By* Torelli de Narci.*

The property which certain transparent minerals possess of doubling images seen through them in certain positions has long engaged the attention of mathematicians. That variety of carbonat of lime called Iceland crystal possesses it in greatest perfection, being the only mineral capable of doubling a line viewed through two parallel faces of the crystal. Hauy has lately pointed out several new minerals which are capable of doubling images, or of *refracting doubly*, as the property is usually called. But Rochon was perhaps the first philosopher who thought of applying this curious property to useful purposes.

Rock crystal has been long known to be capable of refracting doubly when properly cut. Mr. Rochon employed it to measure small angles; and in 1777 he read different papers to the French Academy on his method of using it, and the results which he obtained.

* Journal des Mines, No. 66.

Unfortunately his instrument is of difficult execution, and of course too costly to be within the reach of those who have most occasion to employ it.

This difficulty in forming Rochon's instruments, induced Mr. Torelli de Narci to make a set of experiments on the method of cutting rock crystal, and on its double refraction. Rochon's instrument was a kind of cylinder composed of several forms of rock crystal which are perfectly achromatic and produce very powerful double refraction. Torelli de Narci constructed one of three prisms in which the angle of double refraction is one degree and eight minutes. He has not published his method of cutting these prisms, because some experiments, he says, still remain to be made: but he has given the following account of one of them.

The section of this prism is an isosceles triangle; one of its angles is of more than 100 degrees: the other two of course are acute. On looking through the two faces which form the obtuse angle in a direction parallel to the third face, the object appears neither displaced nor sensibly coloured, but only inverted in such a manner that what is on the right appears on the left, and *vice versa*. If a capital L, for example, cut out and applied to the pane of a window be looked at, it appears reversed thus ⅃. Continue to view the letter turning the prism round upon an axis, passing from the eye to the letter: the image of the letter turns at the same time with the prism; but it moves twice as fast; so that when the prism has made one turn the image of the letter has made two.

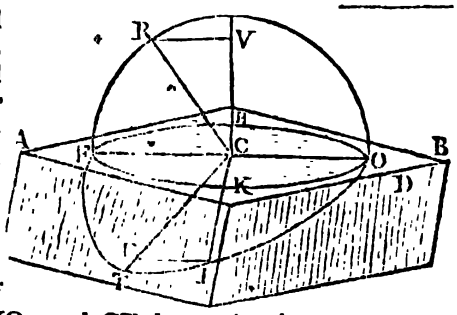
By applying this prism to a *camera obscura*, the objects which without its interposition would be seen in an inverted position are made to appear in their natural situations. The same effect is produced by applying it to telescopes which invert objects. Mr. Torelli de Narci proposes the employment of this prism to shorten telescopes destined to view terrestrial objects. For if it be employed with a convex eye-glass, and an object glass simple or achromatic, objects will be seen in their proper position without the necessity of three, four, or five eye-glasses, as in common cases. Hence the telescope may be shortened the whole length occupied by these eye-glasses. Light also will be gained, nor will any thing be lost in regard to distinctness. In employing this telescope, it must be remembered that at the same time that it inverts the objects by turning them upside down, it turns them from right to left, and what appears on the right in the field of the telescope, is in reality on the left side. Thus if a man going from right to left be viewed with it, he will appear in the telescope as if going from left to right. If he were viewed with the same telescope without the prism, he would not only appear to be going from left to right, but he would be also inverted.

III. *On the oblique Refraction of Iceland Crystal.* By William Hyde Wollaston, M.D. F.R.S.†

Two opinions concerning *light* have divided philosophers for more than a century. According to Newton, light consists of minute particles moving in straight lines from luminous bodies; and in this opinion almost the whole body of mathematical philosophers have joined. Huygens, on the contrary, supposed that light, proceeding from any luminous centre, is propagated by *vibrations* of a highly elastic medium, which pervades all space. This opinion was embraced by Euler, the concealed detractor of the merits of Newton, and supported with all that mathematical skill and address in which Euler has scarcely ever been rivalled. But his success did not correspond with his exertions. Flaws have been detected in his demonstration, and it is to be doubted whether he gained a single convert to his hypothesis. The opinion of Huygens has been lately revived by our countryman Dr. Young, and supported with much ingenuity and skill; but with what success we shall not at present attempt to decide. He has at least succeeded in demonstrating that the hypothesis deserves a serious consideration; and Dr. Wollaston, in the paper of which we intend at present to give an abstract, has shewn that it is highly useful in explaining some of the more intricate phenomena of optics.

In ordinary cases Huygens supposes that the undulations of light are of a spherical form, but in the Iceland crystal he considers them as portions of an oblate spheroid, of which the axis is parallel to the short diagonal of an equilateral piece of the crystal, and its centre the point of incidence of the ray. From this spheroidal form of the undulations, he deduces the obliquity of refraction, and lays down a law observable in all refractions, at any surface of the spar, whether natural or artificial, which bears the closest analogy to that which obtains universally at other refracting surfaces; for as in other cases the ratio is given between the sine of incidence and sine of refraction (or ordinate of the spherical undulations propagated,) so in the Iceland crystal the ratio between the sine of incidence and ordinate of refraction, (in any one section of the spheroidal undulation), is a given ratio.

Let ABD be any surface of the spar, let FHOK be a section of the spheroid through its centre C, and RC any ray of light falling on that surface, draw FO a diameter of the spheroid in the plane of incidence RVO; and CT its semiconjugate diameter in the plane of refraction FTO. Then if CI be the refracted ray, VR the sine of incidence shall be to EI, in the constant ratio of a given line N to the semidiameter FC. In any other plane of incidence the ratio of sine to ordinate is also constant; but it is a different ratio according to the magnitude of the diameter in which the plane of incidence intersects the ellipse FHOK.



When the incidence of the ray, passing from any medium of greater density, upon the surface of the spar, is such that the emergent ray becomes parallel to the surface, the ordinate of refraction is then a semi-

† Philosophical Transactions, 1802.

diameter of the spheroid; and accordingly the refractive power of this spar, when examined by means of a prism, in different directions, should be found to vary as that semi-diameter which coincides with the plane of incidence, and the refracting surface.

Dr. Wollaston's experiments on the oblique refraction of this mineral coincide very well with this theory of Huygens. His experiments were made by means of a prism which ascertains the refracting power of different bodies much more easily than the usual methods of opticians. Dr. Wollaston published an account of the process in the Philosophical Transactions.

The oblique refraction of Iceland spar is made sensible by cementing a surface of it to a flint-glass prism with a little balsam of Tolu. It is least when the line of sight bisects an acute angle of a natural surface of the spar, and may be expressed by the sine 1.488. When the plane of incidence is parallel to one of the sides, the power is 1.518: when at right angles with either side it is 1.537; and in a plane bisecting an obtuse angle it is 1.571.

When the plane surface is formed by cutting off either of the two greatest solid angles contained under three obtuse angles, the refractive power is 1.488 in all directions.—The regular refraction of the spar is 1.657.

By assuming the equality of this with the maximum of oblique refraction, data are obtained for constructing the spheroid by which the refractions are regulated. And Dr. Wollaston found that the calculated results coincide very nearly with those obtained by observation.

IV. *Method of procuring inodorous Benzoic Acid.* *By* M. F. Giese.

Benzoic acid, prepared in the usual way, has a peculiar aromatic odour which has been hitherto considered as a specific character of this acid. Mr. Giese was disposed to doubt the precision of this opinion, by observing that benzoic acid, obtained from the urine of graminivorous animals, is entirely destitute of smell. This induced him to suspect, that the acid might perhaps be deprived of its odour. To ascertain the point he made the following experiments.

1. He combined benzoic acid with potass, and precipitated it by muriatic acid. On repeating this process three times, the acid lost its odour altogether.

2. He dissolved benzoic acid in as small a quantity of alcohol as possible, filtered the solution, and dropt into it water as long as any precipitate was formed. The acid thus precipitated, when separated by filtration, and dried by a gentle heat, is entirely free from any smell.

Benzoic acid owes its odour to a peculiar volatile oil, a little of which it retains when prepared in the usual way. This oil is soluble in diluted alcohol, whereas benzoic acid is not. Hence the theory of the above process.

V. *On the Decomposition of the Acetat of Lead by Zinc.* *By* M. Planche, *Apothecary in Paris.*‡

It is well known, that when a mass of zinc is suspended in a solution of acetite of lead in water, the lead is gradually deposited in the metallic state, forming beautiful arborizations, attached to the zinc, and reaching frequently to the very bottom of the vessel. Neither is the change which takes place unknown. The zinc is gradually oxydated at the expence of the lead, which of course reappears in the metallic state, while the oxide of zinc takes its place in the solution, and enters into combination with the acetic acid. Berthollet, in his dissertation on affinity, has shewn that in most cases of metallic precipitations the precipitate is an alloy, composed of the metal held in solution and the precipitating metal. It was presumable that this holds in the present instance. But the subject had not been investigated with precision. The experiments of Planche then are of consequence, inasmuch as they confirm what had been supposed formerly without decisive proof.

He dissolved 40 parts of acetat of lead in 540 parts of water, and suspended by a fine brass wire 22.9 parts of zinc. After the process the zinc weighed 15.9 parts, and of course had lost 7 parts. The metallic precipitate was more ductile than lead, and contained zinc, a portion of which was driven off by heating the alloy. The liquid which remained tinged vegetable blues green, it formed no precipitate with sulphuric acid, and therefore contained no lead. When evaporated sufficiently it yielded crystals of acetite of zinc. The remaining experiments exhibit the common properties of the oxide of zinc.

‡ Ann. de Chim. 45. 83.

VI. *Composition to prevent Fire.*

Professor Palmer, of Wolfenbuttel has invented a composition to prevent combustible substances from taking fire. It is a powder composed of one part sulphur, one part red ochre, and six parts of copperas. Wood is first coated with glue, and then besprinkled with this powder. The process is repeated several times till a sufficiently thick coat is given: on linen and paper the powder is fixed by means of water. Two ounces of the powder destroy combustion to the extent of a square foot. It is obvious that the principal use of it consists in preventing the air from coming into contact with the combustible, and indeed it is not unlike several of the powders invented to serve the same purpose.

VII. Kongl. Vetenskaps Academiens nya Handlingar, *&c. New Transactions of the Royal Academy of Sciences of Stockholm.—Vol.* xxi. *P.* 1—4, *and Vol.* xxii. *P.* 1 *and* 2.

1. Mr. Nicander, secretary to the Academy of Sciences, and member of the committee appointed to form statistical accounts of Sweden and Finland, publishes in the first volume four new memoirs on the population of Sweden.

Of the rest of the memoirs contained in the volumes before us, the following are the most interesting.

2. Four memoirs on Yellow Bark, by J. P. Westring. The author attributes to that species of bark tonic and anti-febrile virtues, superior to those of any other species.

3. Description of an eelpout [Gadus Lota] wherein

at the same time eggs and soft roe were found, by Professor J. G. Pipping.

4. Meteorological observations made at Utsjoki Lappmark, in 69 degrees 53 minutes, by Castren, in 1795 and 1797. This memoir contains, besides meteorological observations, "*Calendarium faunæ et floræ Utsjokiensis*," wherein the author points out the arrival of passage-birds, and the time when the indigenous plants are in blossom.

5. Oetmannia, a new species of plant described by C. P. Thunberg. Its character is determined as follows:—*Cal. bilabiatus, lab. super. bifidum, infer. filiforme; corollæ petala pedicellata; legumen lanceolatum.* One species only is hitherto known, "*Oetmannia lutea*," which is found on the south point of Africa, at the Cape of Good Hope.

6. On the use and utility of tar-water in venereal diseases, by E. Acherius.

7. Description of the "Sciurus plantani," a species of squirrel, little known, and only found in the island of Java on cocoa-trees. Its character is determined by S. J. Linngh, as follows:—*Supra griseus, subtus albus, stiria utrinque laterali flavicante, cauda longitudine corporis nigro annulata, pedibus tetradactylis.*

8. Description of the "*Gymnotus electricus*," Linn. by Fahlberg. The author chiefly confines his observations to the anatomical part. He preserved the fish fourteen months alive, at the end of which time both its appetite and electrical force sensibly decreased. The latter ceased so entirely after its death, that during the dissection not the least remains of it could be discovered. While living its electrical power was equal, under water, to 10 to 15 degrees, and out of water to 20 to 25 degrees of the charge of an electrical battery.

NOTICES.

At the Royal Society on Thursday last, Mr. Davy's Paper on Astringent Vegetables was continued, noticing the quantity of tanning which they afford; and the degrees of tonic virtue in Port-wine, and Souchong tea.

It may perhaps be a useful hint to the gentlemen who have introduced gardens into many of the hitherto bare and naked grass plots in the squares of our metropolis, that no kind of Fir will ever thrive amidst the smoke of a large town. The gum which they exude attracts the soot, and destroys their increase.

A Correspondent informs us that the principle on which the spectacle of the Speaking Girl is constructed, may be found in Hooper's Recreations.

It may be of service to such persons as find their eyes afflicted with the Opthalmia, which has lately been prevalent, to be informed of a remedy prescribed some years since by a surgeon of great repute: to wash the eyes with camomile tea; when first used it should be luke-warm.

We observe, with pleasure, the great additions which Mr. Tassie late lately made to his collection of Gems and Sulphurs; and may probably notice some of the most recent in a subsequent number.

The Academy of Sciences at Petersburgh has lately published the first volume of the collection of the very valuable articles it possesses. This first volume is entitled, "Collection of Peter the Great," and contains such articles as were left by that monarch; even the turnery-ware he used to make in his leisure hours, and which are preserved in a particular room. The Academy possesses 2964 Russian works, 305 of which are novels, 1350 are manuscripts.

Count *Mussin-Puschkin*, privy-counsellor to the present Emperor of Russia, has set out on a literary journey in the countries situated between the Black and Caspian Seas. His principal object is to examine into the mines of Georgia, and it is expected that his researches will be productive of the most beneficial results, as he is a chemist of great eminence.

The Hydraulic Committee at Milan continues its sittings in the *ci-devant* "Colleggio Elvetico." *Fantoni*, who has published an excellent map of Tuscany, is one of its members.

LITERATURE.

I. *On Geography.*

GEOGRAPHY, when accurately defined, consists in a description of the surface of the globe. Those books on geography which are usually taught and read, are almost entirely occupied with descriptions of men, and the works of men. If we take Guthrie's Geography, which is the most popular book on the subject, for an example, and strip it of every thing that is not essential to geography, we shall reduce it to a mere pamphlet. It is a civil history, an ecclesiastical history, a natural history, an antiquarian history, a commercial history, a political or statistical history, a history of learning, a biography, a chronology, a book on astronomy, on agriculture, meteorology, geology, &c. We are not so fastidious as to object even to this great medley as far as it is useful; for it always gives us pleasure to see useful knowledge conveyed in any sort of mixture that will render it palatable to the great body of mankind. But we cannot help regretting that books written professedly upon geography, should not, while they embrace such a multiplicity of subjects, pay a little more attention to their own peculiar province. This we think consists in a description of the surface of the globe, as distinguished from all the animals, vegetables and minerals found upon it. Would it not be deemed a strange description of London, which should give us an account of what passed within the houses, but should neglect to inform us of the appearance of the city itself, the streets and squares of which it is composed? As a description of a city should consist in the first place of whatever can give us the most distinct conception of its plan and general appearance to the eye, so should a description of the surface of the globe first present us with a selection of those grand objects which are most striking in themselves, and will best prepare us for acquiring a knowledge of the minuter and most interesting parts.

The most striking objects on the surface of the globe, are seas, mountains, and rivers. These, we will venture to say, form the foundation of geography; for it is the accurate knowledge of the relative situation of these, on which all that we can know of the surface of the earth depends. These are the boundaries which separate nations, and the objects with which our idea of nations ought to be combined. We are fully sensible of the importance of astronomy, in creating for us imaginary fixed points, with which we may associate the situation of particular places; but the knowledge of the latitude and longitude of places is not so easily acquired, is not so easily remembered, nor does it give us so distinct a conception

of any subdivision of the earth, as a knowledge of the relative situation of its different parts. The aid of astronomy is an artificial memory, but the knowledge of the relative situation is obtained by natural associations, and therefore is easier. To most men it is much more difficult to recollect numbers or figures, than it is to remember the position of long ridges of mountains, the direction of rivers, and the relation they have to seas. These we can conceive, can call them up in our minds at pleasure, and thus create a map which we can survey without difficulty. The recollection of the direction of chains of mountains, leads us to recollect the direction of the rivers and the form and situation of seas; or our remembrance of the names and situation of seas conducts us to the rivers which flow into them, and the mountains from which they take their rise. Figures or numbers have no natural association with any thing. In short, there is such a close connection between seas, rivers, and mountains, that we cannot think of the one class without finding our minds instantaneously running towards the other classes.

A little reflection will lead us to discover that all we know or wish to know, concerning the earth and its inhabitants and productions, is naturally associated with seas, rivers, and mountains. Almost all great cities stand upon the banks of rivers, or are built in the neighbourhood of the sea: they are the channels of commerce, the sources of fertility and wealth. There agriculture flourishes, manufactures chiefly abound, and even learning makes the greatest advances.

But it may be asked, how is it possible to give such a description of seas, rivers, and mountains, as would be either useful or interesting to the generality of readers? In answer to this, we would say that we know scarcely any thing that is useful which cannot be rendered entertaining. If first attempts fail, future attempts will undoubtedly succeed.

Books on geography, in the first place, should present us with a general description of the mountains, rivers, and seas; and in the second place, should give us a particular description. The general description should point out merely the direction and relative situation of mountains, rivers, and seas. In order to illustrate the ideas which we have ventured to suggest, we will subjoin a specimen, or rather a rude sketch, of a general description of some parts of the earth.

It is proper to premise, that in a general view of the mountains of the globe, is meant only immense ridges or masses of mountains, extending to a considerable length. We will begin with South America, as there the arrangement of the mountains and rivers is least complicated.

A ridge of mountains, called the Andes, runs from one end of South America to the other, extending above 4000 miles; they are situate near the western shore, and at a great distance from the eastern. As rivers are the drains which carry off the superfluous rains, they take their rise among mountains where the quantity of rain is always greatest. From such immense mountains we should therefore expect to find rivers flowing, some towards the Eastern Ocean, and some towards the Western. As these mountains are near the Pacific Ocean, the rivers which rise on the western side, having only a small distance to run, must necessarily be comparatively small. From the eastern side rise the mighty rivers called the Oroonoko, the Maragnon, and de la Plata, rolling their majestic streams to the Atlantic Ocean. It appears probable, and seems to be confirmed by the map which we have examined, that about the 20th degree of south latitude, a secondary chain of mountains extends from the Andes eastward to the Atlantic, broken indeed by one great river. Hence what we may call the secondary rivers, in South America, run either northwards or southwards.

Let us now try whether it is possible to give a general view of the mountains and rivers of Europe and Asia. It is well known that a ridge or mass of mountains begins not far from the west coast of Asia Minor, where it was formerly known by the name of Mount Taurus. It runs along the south of the Black Sea, forming the sources of the Euphrates and Tigris, curves round the south of the Caspian, runs in a winding course along the sources of the Oxus, the Indus, the Ganges, the Sampoo or Burampooter, to the origin of the Hoangho, the great river of China, where it divides into a great many branches.

Another great ridge can be traced from the north of the Caspian to the Eastern Ocean, forming the sources of all the great rivers that run northwards, as the Irtish, the Oby, the Yenissey, the Angara, and the Lena. At the source of the Amour it forks or divides into two great branches; the one running south-east towards Corea, and the other north-east to Kamtschatka. The interposition of the Caspian and Black Sea, and the great rivers the Wolga, the Dnieper, &c. interrupt the course of these mountains westwards. But we again meet with a similar ridge or mass in Europe, from which issue the Dniester, the Vistula, the Oder, the Elbe, the Danube, the Rhone and the Rhine.

From the northern ridge of Asia all the rivers run north, and from the southern they run south. But as the ridge approaches the eastern coast it forks or radiates into various ridges, which arrange themselves in a direction almost parallel with the coast. Hence the rivers towards the east end of the ridge run eastwards. The course of the rivers in Europe is not so regular, and therefore there must be an irregularity in the arrangement of the mountains. We find, however, that at the extremity of the Alps, the ridge of mountains in France, Jura and Cevennes, is nearly parallel to the western coast. From these two great ridges diverge a great number of secondary ridges, generally in a northern and southern direction, forming immense bulwarks against the rivers, and conducting them towards the place of their destination.

In teaching Geography, the master ought to begin at the eastern coast of Asia, or western coast of Europe, and teach his pupil to name all the rivers in succession according to their relative situations, together with the ridge of mountains from which they rise, and the seas into which they discharge themselves. When he can do this by heart, and point them out readily on a map without looking at their names, he has then learned the general geography of Europe and Asia.

In acquiring a knowledge of the particular geography of the different parts of the globe, the secondary ridges ought to be attended to, the relative magnitude of the rivers, and the length of their course; the cities which stand upon them, and the soil and productions of the vallies or plains or countries that lie upon their banks. After this has been done, which it is matter of regret our present systems of geography do not enable us to do, the artificial division of the globe, as it is distributed among various nations, can be easily learned. When this knowledge is acquired, we can use with advantage the aids which astronomy bestows on geography; then we can understand the nature and effects of climate, which by no means depends upon latitude; then we are qualified to examine the nature of the seasons, and the course of the winds; and to derive all those benefits from geography which are necessary to elucidate the ancient and modern history of states and nations.

In a complete system of geography, there ought to be tables of the seas, rivers and mountains. The seas ought to be arranged in a table according to their extent, with the length and breadth of each: the rivers according to their magnitude and length of their course; and the mountains according to their height. For each particular country the system of geography should also furnish tables of the same kind. If these additions were made to the systems now in use, we should not object to any other species of knowledge which it may be deemed useful to convey. At the same time, we are fully sensible that in a first attempt it might be found impossible to execute the plan which we have proposed, because geography is still in a very imperfect state. The plan, however, might be executed in such a manner as would be highly useful, and future geographers, sensible of its utility, would unite their labours to bring it to perfection.

I. T.

II. *Reply to the Strictures, in the last Number, on our Review of Tytler's Elements of General History.*

We find that some of our remarks upon Tytler's *Elements of General History* have drawn upon us the animadversion of a Correspondent, who, after almost complimenting us by a comparison with the immortal Newton, expresses his opinion, that we are subject to the strange illusions produced by suspicion, the infirmity of love or old age, or *too much* learning, under the sober garb of rational criticism, and proceeds to charge us with grammatical and arithmetical inaccuracy respecting Roman chronology.

This writer will not allow the very extravagant term of 244 years, assigned to the reigns of the seven kings of Rome, to be fabulous: and he proposes to examine this *pretended* forgery at a future opportunity; whereby we understand, that he is to vindicate it. When he shall be able to produce any *historic* list of seven successive reigns of equal duration, even in an *hereditary* and *civilized* kingdom, we shall acknowledge that the duration of the Roman kings is *not impossible*. But in order to prevent a waste of time and erudition, may we presume to recommend to him to look at the chronology of the Roman emperors, rather better ascertained than that of the kings, or even to examine the series of the sovereigns of England from the conquest to the present time, a period of clear chronology and of comparative civilization; and he will find, that reigns as long as those ascribed to *all* the *elective* kings of Rome *in its savage state*, very rarely occur.

We by no means pretend to infallibility; '*nosque ipsos redargui reprehendique patiamur, quod ii ferunt animo aliquo, qui certis quibusdam destinatisque sententiis quasi addicti et consecrati sunt, eâque necessitate constricti, ut etiam quæ non probare soleant ea cogantur constantiæ causa defendere. Nos, qui sequimur probabilia, nec ultra id, quam quod verisimile occurrerit, progredi possumus, et refellere sine pertinaciâ, et refelli sine iracundiâ, parati sumus.*' (Cic.* Tusc. *quæst.* l. ii. c. 5.) We are therefore very ready to acknowledge a mistake of two years in the date assigned by us to Pliny's dedication, arising from the supposition (very natural to one who examines it only for a particular point) that the name of Vespasian, with the subsequent address to him as emperor ('*jucundissime imperator*') should apply rather to the emperor so called than to his son, who is generally known in history by the name of Titus; and who, after all, was not then really emperor, but only associated with his father for the sake of securing the succession. Less expence of learning than our corrector has bestowed, or a single glance of Fabricius, would have sufficed to convince us of this trifling mistake: and we willingly resign to him those two years without entering any claim upon some of the many years employed on so great a work as Pliny's Natural History, which no one can imagine composed during the six months of the sixth Consulate of Titus, though Pliny had not told us himself in the same dedication, that he was employed upon it before Titus was enrolled in the list of emperors. But two, or twenty years are not worth talking of, where so many whole centuries of rubbish are to be shovelled away.

The objector next contends, that the words '*à regno Numæ*,' (from, or since, the reign of Numa) mean *from the accession of Numa:* and our understanding them to signify, *from the death (or termination of the reign) of Numa*, is apparently what has drawn upon us a charge of grammatical, as well as arithmetical, error.—Suppose it were asked, How long is it since the reign of George the Second (*a regno Georgii Secundi*)? Any one will answer *forty-two* years, or the *forty-third* is running. But, says this gentleman, such an answer is erroneous in grammar and arithmetic, and it ought to be *seventy-six* years.

Though Polybius, Fabius Pictor, Cato, and Varro, differed in the era of the origin of Rome, and Varro's era was only assumed in latter times by the emperors in their public papers, in order to have a fixed point to reckon from; though Sigonius and others of the most learned modern investigators of history have not pretended to fix the age of Rome, we are now enjoined by this writer to give faith to Varro's calculation, or at most not to vary above one year from it. But where does he find any standard for Roman chronology, or any vouchers for the facts in early Roman history? Where are the 'senatus con-

* For Cicero's opinion of the authenticity of Roman history, see De clar. orator. cc. 61, 62.

sulta, plebiscita de societate et fœdere ac privilegio cuicumque concessis?' Such authentic records actually existed, engraved upon plates of brass, though scarcely ever quoted, or even mentioned, by any writer, either ancient or modern, except Polybius. That they were inaccessible to, neglected by, or unintelligible† to Livy, is evident from his work. Neither do we find any use made by succeeding writers of the substitutes, such as they were, which were supplied by Vespasian, after the original plates were destroyed. (Suet. Vesp. c. 8.) The commencement of the consular government, an event so important and prominent in Roman history, was so little known to Livy, that he was ignorant of the names of the consuls who were in office at the consecration of the temple of Jupiter Capitolinus in the first year of the new constitution, as he was also of several other events of that age, though he possessed the work of Polybius, who would have set him right, if he had taken the trouble of consulting him. He might also have avoided some erroneous statements of facts, if he had consulted Herodotus. And thence, by the bye, it appears that Livy, instead of founding his work upon the few *good* authorities accessible to him, neglected even those, and went on dashingly to detail fabulous traditions, or perhaps to invent, just as he thought the story would tell best.

Though we have thus very briefly hinted at a few of the many instances of inaccuracy and omission to be found in Livy, who is generally esteemed the chief writer of the regal and consular history of Rome, we are not disposed to enter into discussions upon any of the contradictory and improbable fables contained in his romance, which neither the nature of a periodical publication, nor our more important avocations, will permit. We shall only beg leave to ask, *what constitutes historic truth?* Is it not either ancient record, or the testimony of writers worthy of credit, who wrote soon after the events related by them? Of ancient records, the most valuable supporters of history, because they are unquestionable, the two or three preserved by Polybius expressly contradict the stories of Livy, and Dionysius of Halicarnassus. Of writers, who lived early enough to know any thing of Roman kings or of Roman transactions previous to the first Carthaginian war, even by tradition, there are a few, and but a few, who mention Rome incidentally; and their evidence is very far from giving support to any of the common Roman stories.

If the received early Roman history were supported upon any authority (but none has ever been produced) the rational student of history would give credit to it in proportion to the value of the authority: as it stands, he will pay no more attention to it than to other fables equally destitute of historic evidence. But we by no means wish to hinder every person, who chuses it, to jog along upon the beaten road, and to enjoy his *mumpsimus*, as long as he pleases: and if he also chuses to employ his time and labour in heaping additional masses of fable upon the head of TRUTH, in order to keep her down in the bottom of the well, we shall not be such knights-errant as to step out of our way to encounter him.

† The ancients had not the advantage of a standard permanent language for their public records, such as the Latin, with all its barbarisms, was during the middle ages in Europe. The Roman language of the age of the first consuls was scarcely intelligible in the time of Polybius, and must have been so obsolete in Livy's time, that though the plates of the ancient treaties, &c. had been well preserved and arranged, and submitted to his inspection, he could scarcely have made any thing out of them.

III. *Some Account of* G. Tiraboschi.

Girolamo Tiraboschi was born at Bergamo the 18th December, 1731, and educated at the college of Jesuits at Monza. He entered that order in 1746, and soon distinguished himself by his talents and erudition. He was successively appointed professor of eloquence at the University of Brera, and librarian and director of the Numismatic Museum of the University of Modena. Hercules III, duke of Modena, ennobled him in 1780, and about the end of the same year the "*Conservatori*" of Modena sent him the diploma of a member of the Modenese nobility. Bergamo, his native town, ordered his bust to be placed in the council-hall of the city, and several literary societies aspired to the distinction of inscribing his name in the list of their members. He was engaged in a very active epistolatory intercourse with the most eminent literati of Europe, and published a great number of works, which procured him a very distinguished rank in the republic of letters. From his laborious and sedentary way of life he contracted, in 1791, a malady which put an end to his existence at the age of 63.

His natural modesty did not allow him to publish many of his youthful productions. But two very eloquent speeches of that number are left, we mean, his speech on the history of his native country, printed at Milan in 1759; and another on the recovery of the late Empress Maria Theresa, published at Milan in 1764.

But it was chiefly as a historian and biographer he aimed at literary eminence, and the following list of his works will evince the zeal with which he ran his illustrious career.

1. *Vita di S. Olympia*, &c. Life of S. Olympia, widow and deaconess of the church of Constantinople, 2 vols. Modena, 1775.

2. *Antichi Monumenti*, &c. Antiquities of the *Umiliati*, illustrated by notes, &c. 3 vols. Milan, 1776.

3. *Biblioteca*, &c. A biographical account of Modenese writers and artists, 6 vols. Modena, 1782.

4. *Reflessioni*, &c. Observations on genealogical writers, Padua, 1782.

5. *Memoria*, &c. Treatise on the first promoters of the Copernican System, and on the condemnation of Galilei and his system. Modena, 1790.

6. *Memoria*, &c. Treatise on the knowledge we possessed of the sources of the Nile, prior to the travels of James Bruce. Mantua, 1791.

7. *Memorie*, &c. Treatises on various points of the history of Modena, 4 vols. Modena, 1793.

8. *Storia della Letteratura Italiana*, &c. History of Italian Literature, 8 tomes in 13 vols. Modena, 1770 to 1781.

The transcendent merits of the last work were so gratefully acknowledged in every enlightened part of Europe, that the author was enabled to publish a

second edition in 1737 much improved and enlarged by a great variety of new articles.

His correspondence with *Vanelli, Zorzi, Mattei, Bianconi, Galeani, Napeoni, Retzer,* &c. contains treasures of erudition. He has also composed numerous memoirs on various branches of the sciences in the "*Giornale letterario di Modena,*" a very respectable literary journal, of which 43 volumes have already been published; a treatise on the invention of the art of printing, inserted in the Prodromus of the new Italian Encyclopædia, published at Siena, in 1779; and a vast number of supplements and corrections of the French Encyclopædia, reprinted at Padua.

We feel sincerely obliged to such persons as favour us with their opinions of any sentiment or any facts presented to the public in the Literary Journal, *but we are sorry that any thing which has appeared in it should have laid us under a sort of necessity to make it a vehicle of political controversy. The letter of* Mr. Capel Lofft *in our 9th Number has produced us a variety of Communications of an opposite nature, of which the following, bearing the name of the Author, we have thought it our duty to present to our Readers.*

IV.

To the EDITOR of the LITERARY JOURNAL.

SIR,

You must excuse me if I attribute much more merit to your impartiality for inserting Mr. Capel Lofft's letter, than to your gallantry for having done so without a comment, because it is in defence of a lady; having always been accustomed to consider the defence even of a lady as entitled to very different degrees of respect, where, on the one hand, a charge is refuted, or the offence at least extenuated; and where, on the other, it is not only admitted, but justified and extolled. On this score, I am ready to allow Mrs. Macauley Graham the full benefit of whatever Mr. Capel Lofft, or any one else can say respecting the time and manner in which she thought proper to publish her own writings, of which I find from your former Correspondent's account of her, and from all I had before heard, that I know just as much as I ever wish to do. But as to the American war having been more unfavourable than any thing except the late French war to all publications in this country, (and no other I suppose) which had any reference to general and liberal politics, notwithstanding the thanks which were voted at certain meetings, and in certain societies, to Mr. Burke, for the discussion which he had provoked; in which, ample and almost unlimited as it certainly was, Mr. Capel Lofft himself had no inconsiderable nor undistinguished share; or that such a circumstance could have had any weight in deterring a lady "with a soul of like energies" to Milton's, from *publishing* her sentiments, without a long pause after they were *written*, I can only say, *Credat Judæus Apella—Non ego.*—

Her preference also of Milton the *politician*, to Milton the *songster*, may or may not be considered as an imputation on her literary taste, according as Mr. Capel Lofft's opinion, or that of the public in general may prevail; by whom, as Mr. Todd observes, the prose writings of Milton, which almost exclusively contain his political sentiments, "were neglected, and soon forgotten—and at present "they are almost unknown;" nor undeservedly on other accounts, beside that "of their style being perplexed, "pedantic, poetical, and unnatural; abounding with enthusiastic effusions, which have been mistaken for eloquence and imagination;" a mistake which Mr. Capel Lofft has certainly made.* But when the bare mention of this singularity of taste in Mrs. Macauley Graham, (for you will observe that Milton had nothing else to do with your Correspondent's remarks,) has given such urgent occasion, not of offering any apology for the Lady's *political* sentiments, for that would be "unjust to her memory, "and degrading to her advocate himself;" but of ascribing "the praise of disinterested and exalted virtue" to one—and who does not grieve that such was Milton!—who had forfeited all claims to loyalty "by justifying the murder of "his lawful sovereign," and all pretensions to a real "love "of liberty" by selling his services and his flatteries to a "tyrant and an usurper." Those, who have it in their power to prevent it, are I think rather loudly called upon to take care, that a similar, or even higher seasoned panegyric be not very shortly perpetuated on the monument which it is intended to place over the grave of the traitor Despard, *alias* Hamilton, in St. Paul's. Since we are informed, that it was for the purpose of making *more conspicuous* an inscription no doubt to that effect, as having been written by himself, that the body of this self-excommunicated atheist was, by his *moral* and *political* friends, so honourably, so honestly, and with such dignified consistency, thrust into the church, and into the metropolitan church of the kingdom, after his death, who would in all probability have somewhat warmly resented *the insult*, or have complained of the *persecution*, if he had been even solicited to enter it during his life.

As this panegyric of Mr. Capel Lofft, on the *political* sentiments of Milton, may, however, very probably be only one of some similar efforts which have lately been made to bring his *Prose* works again into notice, and to promote the sale of a new edition; and for any thing I know, Mr. Capel Lofft himself may be in this respect somewhat ambitious, and is certainly every way capable of rivalling their first editor, Toland, I shall beg leave to subjoin to the opinion I have already quoted of their *literary* merits, the following remarks of the same learned and impartial critic, on the *nature* and *tendency* of their contents: and I do it with the less hesitation, as to any injury which it can be of to the sale of the work, because with the fullest assurance that it will not, with those who think so very differently, at all lessen the claim of Milton as a *political* writer to "universal and perpetual admiration," and because every body else will immediately perceive how *very necessary* and *seasonable* the publication of *such sentiments* must be at the present moment.—"In point of "doctrine, they are calculated to annihilate the very foun-"dations of our civil and religious establishment, as it "now subsists: they are subversive of our legislature, and "our species of government. In condemning tyranny "he strikes at the bare existence of kings; in combating "superstition he decries all public religion. These dis-"courses hold forth a system of politics at present as un-"constitutional, and almost as obsolete, as the nonsense of "passive obedience; and, in this view, we might just as "well think of republishing the pernicious theories of the "kingly bigot James, as of the republican usurper Oliver "Cromwell."†—So much for "the *immortal* Prose!" the "disinterested and exalted virtue of this eloquent and in-"trepid defender of the *rights* of his *country* and of

* We recommend to our Correspondent the perusal of Mr. Hayley's Life of Milton, as well as that of Mr. Todd, where he will receive from a man of equal loyalty, good sense, and good taste with Mr. Todd, very different ideas respecting the Prose writings of that inestimable Poet. "Had the Prose Works of Milton no merit but that of occasionally affording us little sketches, his sentiments, his manners, and occupations, they would on this account be highly valuable to every reader, whom a passionate admiration of the poet, has induced to wish for all possible acquaintance with the man." Hayley's Life of Milton, p. 19, 2nd. edit. 1796. Ed.

† Todd's Milton, Vol. vi. p. 392.

"society!" and enough I hope to satisfy us, "of the like "energies of soul," *political* energies I mean, and so does Mr. Capel Lofft, possessed by that great and admirable woman, Mrs. Macauley Graham! Of all which, however, how transcendently great must be Mr. Capel Lofft's admiration, seeing it surpasses his "enthusiastic love of poetry," and even of that which is confessedly of all most excellent, —the *Poetry* of *Milton*. I am, Sir,

Your very humble servant

THOMAS MEARS.

NOTICES.

Mr. Lewis has again given proof of the terrific powers of his pen in a monodrama, or drama in one act, entitled, the Captive, or a tragic scene, exhibited at Covent Garden Theatre, on Tuesday evening. The Scene represents the interior of a place of confinement for Maniacs, in a cell of which is a female, who, in a soliloquy, discovers that she has been torn from her friends, and confined there under the pretext of insanity. The rest of the Performance is pantomimic. The soliloquy consists of a Poem in stanzas, each ending with,

"I am not mad! I am not mad!"

Mrs. Litchfield never did greater justice to an Author. Having in vain endeavoured to excite the pity of her keeper, the despair of the captive is heightened to a paroxysm by the howling of a Maniac, who has escaped from his cell, and whose gestures are beyond imagination dreadful.—Unable to support this scene she exclaims,

"I am not mad! but shall be mad!"

and falls into a swoon. She is awakened from this by the entrance of her father, husband, and brother; but she has lost her senses and does not recognize them. Here the coup de main of Kotzebue is attempted; her child is introduced. She recovers her senses and exclaims,

"I am not mad! I am not mad!"

The Public will know how to estimate the tragic merits of the Piece, and the abilities and exertions of the Performers, particularly Mrs. Litchfield, when they are told that not the stage only, but the whole House exhibited a "tragic scene." Several ladies were carried out in hysterics, and few could suppress the emotions which were excited.

We were much pleased when the Author, consistently with the wishes of the Audience, withdrew his piece. Its consequences were too serious for a repetition.

At the Society of Antiquaries on Thursday the 17th inst. Queen Elizabeth's House Book was continued.—A short paper in Latin was read, giving an account of Henry the Sixth's visit to the Abbot of Bury, and of what was done at the Abbey during the ceremony of the royal reception. At the same time was exhibited a lamp for 12 lights 18 inches in diameter, of a circular form, from Herculaneum —with a mask of Osiris opposite each light in a circle within; and within that an ornament composed of honeysuckles, between the heads of Osiris the Egyptian Bacchus, are Thyrsuses; and under them, in the outer Circle, are Isises.

We understand several literary men are going to undertake a new translation of Plutarch's Morals, a great desideratum in British Literature, as that Work abounds more than any other in ancient anecdote. There is one translation of it in folio, by Philemor, in Holland, in the reign of James I. and another by various hands in five vols. 8vo. printed early in the last century; the execution of which is beneath criticism.

The honorary degree conferred on John Crips, Esq. who lately returned from his travels with Mr. Edward Clarke of Jesus College, was lately given in a crowded senate. Our Correspondent informs us that he never witnessed a more interesting scene. The Reverend Edmond Outram of St. John's College, the Public Orator, directed the attention of his hearers to the travels of Mr. Crips and his friend, and gave an animated account of what they had performed. With a flow of eloquence he described their visit to Mr. Tweddel's neglected grave in the Athenian territory, their covering it decently with marble, and rendering it the last melancholy duties, as it lay abandoned in that remote country. He then introduced their discovery of the city of Sais, and their bringing Plato to light from its caverns in Patmos. Dr. Jowitt, the professor of Civil Law, was heard to remark, "*never was there such a subject for a public orator, never was there such an oration.*"

Mr. Clarke has just published the first volume of his large and important Work on the Progress of Maritime Discovery. We have just looked at the table of contents, where we find—Detections of the Abbe Prevost's theft respecting Astley's Collection of Voyages; the two Naval Orders as mentioned at p. 25, 33.—Opinion relative to the Place where the Ark rested—Observations on the Island of Atlantis, as mentioned by Plato—Remarks on the Country of Ophir, and his Opinion that it was the Island of Ceylon—Remarks on the probable Consequences if Rome had been subdued and Carthage had triumphed—The interesting Speech of Pericles upon War—Observations on the Flower that marks the North on the Compass, and his Idea that the Load-stone was known to the Navigators of Solomon's fleet—Extraordinary Error of Dr. Robertson respecting the first doubling of the Cape, &c. &c.

We shall give a copious review of this book at an early opportunity. Mr. Clarke is the same gentleman who lately published a volume of naval Sermons; and who has just commenced a series of discourses on the Pentateuch, at Park-street Chapel, Grosvenor-square.

A beautiful edition of Ossian is in contemplation, as we understand, under the auspices of the Highland Society.

Mr. William Daniel has completed three series of Oriental Scenery, in three large port folios of coloured prints. The first at the moderate price of £15; the second of £30; and the third of £30. We have been particularly struck with the engravings of "Sculptured Rocks at Mavalipuram, on the coast of Coromandel," of "Entrance to the Elephanta, near Bombay, and part of its Interior;" of "Ruins at the ancient city of Goun, formerly on the Banks of the River Ganges;" of "The sacred Tree of the Hindoos at Gya, Bahar;" of "South West View of Fort St. George," and of "The Idol called the Great Bull, at Tanjore."

If we may judge by the exertions making by the different Artists, the ensuing Exhibition at Somerset-house promises to be a very rich display of talent.

Several alterations have lately been made in the organization of the celebrated College *de la Brera*, in Milan. The old respectable librarian *Direcckio* has been dismissed on account of his apparent attachment to the House of Austria, and *Leopold Polak*, the celebrated architect of the superb palaces of *Belgiojoso* and *Monte de Santa Teresa*, has shared the same fate. He is succeeded by *Bargigli*, a Roman; *Locatelli* has been appointed professor of sculpture; and *Signorelli* has obtained the chair of rhetoric and belles-lettres.

At the *Bosch* near the Hague, formerly a country-seat of the Stadtholder, a national gallery of the Fine Arts has lately been opened under the direction of Citizen Cornelis Sibille Rous. It is divided into seven rooms; two of which contain portraits of illustrious persons, by P. Boll, Van der Helst, Mienevald, Hondhorst, &c.; three, a choice collection of pictures of the Dutch and Flemish schools; and one, some very fine paintings of the Italian school. The last room is designed for the preservation of some

curious articles; such as the sword and staff of command of Admiral de Ruyter, &c. &c.

The typographical Society of Pisa, has lately published the twenty-fifth volume of "*Parnasso degl' Italiani viventi*," which contains some very fine poetry, by *G. D. Anguillesi* of Pisa, and *Onofrio Minzoni* of Ferrara. A beautiful *canzonetta*, addressed to the Duchess of Devonshire, and a satirical poem on the Power of Fashion, both by *Anguillesi*, possess uncommon merit.

MANNERS.

WE have been induced to insert the following observations in this place, because they suggest some reflections, immediately connected with the stage, and not unremotely with *Manners* in general.

Observations on the Comedy of John Bull.

"As the comic drama, if not an exact mirror of the times, must, to please the public, at least adopt character and incident congenial with the general feeling, perhaps there is no better mode of estimating the comparative morals of two periods than a comparison of their popular comedies. Considering Mr. Colman as eminent for comic merit now, as his father was forty years ago, we will rest our investigation on the comedy before us and on the "JEALOUS WIFE." The present comedy opens with the display of a romantic and dreary country, from which at first we can hardly think ourselves in England; as in another comedy of this season we should fancy ourselves in Siberia, did we not discover, that what appears like the postern of a solitary castle is really the back-gate of a county-jail, standing in the street of an English town.

"One of the principal characters is a sentimental brazier, and the heroine, his daughter, a young woman seduced, and afterwards forsaken by a man, greatly her superior in situation; while the chief humour is derived from the blunders of an honest Irish landlord.

"In the JEALOUS WIFE, the chief characters are all gentlemen and gentlewomen, taking the word in what is, or perhaps we should rather say, was its usual signification, and from their virtues, their vices and their follies, the humour and the interest of the piece are derived.—*Sir Harry Beagle* is a brutal country squire, but his conduct is not commented on by a virtuous groom; Captain O'Cutter is not accompanied by a sentimental boatswain; nor Mrs. Oakley attended by a sentimental waiting-maid; neither is Major Oakley followed by the counterpart of Corporal Trim.

"How is the distinction which runs through most of the comedies as well as the novels of the two periods to be accounted for? Not entirely from the change of Manners. Though the race of landed gentlemen whose follies, vices, or virtues produced a *young Bevil*, a *Sir Charles Grandison*, a *Sir Harry Beagle*, a *Squire Western*, a *Mr. Lovemore*, or a *Bob Lovelace*, be nearly extinct, surely the successful and opulent trader who has stept into their place, and whose son will have the same education and pursuits, cannot be as widely different as characters of distinct ages and remote regions: nor does our every day's experience enable us to say that our servants and day-labourers are more virtuous in their conduct, or more elevated in their notions, than they were forty years ago. The universal practice of imputing every virtue to the lowest orders of society, and every vice and every folly to the wealthy and the noble; and the considering a breach of chastity as an essential requisite in an amiable female character, is certainly not derived from real observation on modern British manners, but originates in the prevailing taste for that monstrous farrago of absurdity and immorality, the German drama. But there is one striking peculiarity of modern comedy which, it is to be feared, is derived from our Manners. The sole interest now turns on poverty and wealth. We are now no longer agitated by the various distresses and final successes of a generous passion. The *Injuriæ, Suspiciones, Inimicitiæ, Inducia, Bellum, Pax rursum* of honourable lovers are banished from the stage; and the distress arises from urgent creditors and sheriffs; and the happy catastrophe, from the intervention of fortune (like a god in some of the Greek tragedies) in the shape of an unexpected bequest or the detection of a forged will.

"While such are the materials of comedies, it will be difficult for the most skilful artist to work them into a permanent texture; and though we consider Mr. Colman as *facile princeps* among the *play-wrights* of the day, we by no means augur immortality to "John Bull:" yet we think that the "Heir at Law" will live as long as genuine humour, pathetic situation, and incident at once interesting and probable, shall give pleasure to a British audience." E.

One of the principal characters in this popular Comedy is, as our Correspondent remarks, a sentimental brazier; the heroine, his daughter, is seduced and forsaken by a young man greatly her superior, but to whom, by the contrivance of the poet, she is married at last. Now, without making any observation on the character of a *sentimental brazier*, which is a nonentity in real life, we would remark, in the first place, that the moral purpose of the drama is defeated by the marriage of the seduced young woman to her seducer. This must be either what happens every day, or what is very likely to happen under the given circumstances: it cannot else be, what all Comedy should be, a picture of real life and manners; but that it does happen often, or is likely to happen, under any circumstances, is what few will venture to assert. And if it be mistaken for fact or probability, we would ask how many braziers' daughters would scruple to be seduced, if certain, or if in hopes to be rewarded by the hand of their seducer, and that seducer a young baronet? In novels, we are aware, that such incidents are not infrequent, but it is surely needless to add, that novels in general have long ceased to be representations either of what does, or of what ought to take place in common life.

Our Correspondent, after comparing the characters of John Bull with those of the Jealous Wife, asks, "How the distinction which runs through most of the comedies as well as the novels of the two periods (1763 and 1803) is to be accounted for?" "Not entirely," he thinks, "from the change of manners." Certainly not, but in some degree it may. The *Sir*

Harry Beagle of the Jealous Wife, was written at a time when the class of country 'squires were becoming extinct; it was in truth the 'Squire Western of Fielding. That class are now perhaps entirely extinct. The gentlemen of landed property have every where better education, better manners, and keep better company, which may in part be attributed to the practice of all country gentlemen, of passing some part of the winter in London, where brutality of manners would amount to an exclusion. The principal characteristic, also, of these 'squires was an immoderate attachment to hunting, and to hunting only; but a great change was made in their habits, when *racing* began to be extended to every heath and down in the kingdom. We shall not be suspected of any particular wish to become the panegyrists of the turf, but it is undeniable, that in a choice of evils we may have a chance for improvement; and the race, its laws, manners. and etiquette were undoubtedly calculated to repress the boisterous spirit and brutal manners of those petty tyrants, who soon found that in company with their equals and their superiors they could not domineer as they did on their own estates and among their dependents. For these reasons, the exhibition of a Sir Harry Beagle, or a 'Squire Groom on the stage now, would appear monstrous; and we observe that the players who act those characters depend entirely on a traditionary kind of performance which they remember to have seen when the characters were in existence, and which is handed down from actor to actor until its original colourings and spirit dwindle to a *caricature* or extravagant representation, at which we are diverted without being informed or edified —The same remarks may probably be extended to the fops of the last age, of whom the late Mr. Dodd was the last representative; he took his mode of acting these characters from the old school, and dressed, looked and talked in a manner which we acknowledged to be diverting, but which was unintelligible, because the character had merged into a species of fops or puppies, whose manners and language were diametrically opposite.

We agree with our Correspondent, that the "universal practice of imputing every virtue to the lowest orders of society, and every vice and every folly to the wealthy and the noble; and the considering a breach of chastity as an essential requisite in an amiable female character, is certainly not derived from real observation on modern British manners, but originates in the prevailing taste for that monstrous farrago of absurdity and immorality, the German drama." Yet we repeat this opinion chiefly because it affords us an opportunity of making a few remarks on the manners of the lower classes of people, which, we are of opinion, justly entitle them to a high degree of respect, when compared with those of any other nation in the civilized world.

We discard as monstrous and even pernicious, the fictions of sentimental braziers, bailiffs, and turnkeys, although these men may in their various occupations, exercise a requisite portion of honesty, industry and humanity; but they will do that without any reflections on their superiors, and without sermonizing as if they had a shilling gallery always in their eye. Such representations are extravagant and absurd, and argue that poverty of invention which is but too obvious in the late dramatic productions. But having entered our protest against these, we would assert, and that at no great risk of contradiction, that the lower classes of people in this country have within the last century partaken very largely of the general refinement of the age, which refinement (to prevent our meaning from being mistaken or misrepresented) we state to consist in a respect for public decency, and a just sense of propriety.

If it be asked, in what is this visible, and how can it be proved? we answer, first, in the declension and almost extinction of brutal manners and brutal sports, so common among our ancestors. A clamour has lately been raised against *bull-baiting*, and it led to debates in an assembly of which we wish to speak with reverence; but we cannot help remarking at the same time, that one party declaimed against an amusement, as *common*, which is infinitely more rare than it was fifty years ago; and another part endeavoured to trace a connexion between it and the loyal and warlike spirit of the nation, for which not a shadow of proof could be advanced. The sister amusement, *cock-fighting*, is still practised, but almost every where with secrecy, and rather among the upper than the lower classes, while the vulgar cruelty of throwing at cocks has been generally given up.

Fifty years ago, it may be remembered by some now living, no persons, especially females, could hire a boat on the river, without being insulted, throughout the whole sail, or row, by the passengers in every boat they met with. This was at one time so common as to be allowed by all ranks; it seemed as indispensible as the necessity of being on the river, and no notice was taken of it, but by such retaliation in kind as might present itself. That it was a grievance, we may readily suppose, must have been on many occasions severely felt; but no such abuse is now heard of; perhaps in a few years it will not be believed.

Connected with this in some degree was another *trait* of brutality. About the same time we have mentioned, no foreigner could pass along the streets without being insulted, and that by the general name of *Frenchman*. It is needless to say, that no trace of these manners remain, but it is necessary to ask by what means they were abolished? Not by any law, for they never were the object of legislative or municipal interference. Obviously they yielded to an amelioration of manners, and a sense of propriety and humanity, descending gradually from the example or sentiments of the upper classes, and thus pervading the whole orders of society.

We might multiply examples of this kind, by appealing to the general conduct of the populace at public amusements, &c. but the instances we have selected are perhaps decisive as to the main point at issue, namely, the increased respect that is entertained for public decency, and the sense, which seems more general, of propriety in conduct and manners. And what we have advanced will not, we hope, be set aside, by the consideration of the riotous or seditious disposition which has of late years manifested itself. The means by which that disposition

was excited were foreign; the principles, and engines, and agency employed, all foreign and unnatural to an Englishman. They were made to operate, not on the lower. but the *lowest* classes, low in every thing, in mind, manners and education; yet with all this anxiety to introduce a *Paris* mob into London, we have the happiness to reflect that the success of the seducers has borne very little proportion to their industry, and that although assisted by very powerful allies, we mean, all the malignant passions of the human heart, they have as yet done little more than to quicken the vigilance of the police, and excite the fears and abhorrence of the public at large.

Yet while we are of opinion that a beneficial change has taken place in the manners of the lower orders, we do not mean to confine it there. We have already hinted that it has descended to them from the example and sentiments of the upper classes. Objections may be made to many of the follies of the upper ranks, and we shall not be sparing of them, as they may afford us materials; but there is this essential difference between the British public, and the public of a neighbouring nation, that in the former, although follies may be practised which are disgraceful, they are limited to a particular class, and they are DEFENDED BY NONE; in the latter, they are general, characteristic, and so far supported by government, that at this moment it actually derives a very considerable revenue from—GAMING-HOUSES. R. S.

NOTICES.

A certain Dutchess has lately taken a strange Whim into her head, of attempting to drive up Market-street of an Opera night, contrary to all established rules. *Townsend* remains invincible; we trust her Grace will relent, and have pity on the *Sedan Chairs*.

We understand Mr. Kemble has renewed his engagement at Drury-lane Theatre for *twelve nights only*, for the enormous sum of Six Hundred Guineas!—No wonder there are so many new candidates for theatric fame.—Who would not be an Actor?

POLITICS.

WE are more and more convinced every day that wisdom will so far prevail in the councils of the two nations which at present threaten one another, as to save us from a renewal of hostilities. Persuaded that nothing is wanting to produce the most rapid improvement of society which the human species has ever yet exhibited, but peace among the nations of Europe, cordial and sincere, we confess that we do look forward to it with ardent desire; and cannot think of any thing likely to prevent or destroy it without the most painful sensations. On considering the tone of popular opinion and passion in France, and in this country, concerning the event of a war between them, it appears to us that a false persuasion of the power of the former country is the main cause, with the inhabitants of both, of the hostile sentiments which they entertain toward one another. Elated with the vast success which has attended their arms, the French conceive that nothing in this species of enterprize is too difficult for them; and they are not a people to conceal their opinion of their own greatness. Britain is the only country which can at present be held forth as a competitor, with equal or superior claims; and it is not very unnatural that France should wish to shew by proof to Britain, and to all Europe, that she is superior even to Britain, and by reducing the power of that sole rival, to place her in a situation to advance no more disagreeable pretensions.

The persons in England who are most disposed for war, are those who conceive the safety of their country to be in danger from France. They are strongly persuaded of the inimical sentiments of that country toward this; and they reckon her power to be so augmented as to afford her many more facilities than before of executing those inimical intentions. They think, accordingly, that this country ought to go to war with France to deprive her of the powers of injuring Britain; that the longer France retains these powers the more difficult they will be to wrest from her, because they will be continually employed for the strengthening of France, and for the weakening of her antagonist.

Conceiving modes of thinking in some degree resembling these to prevail pretty generally in the two countries, and to be the chief cause of the unfriendly temper which prevails between them, we concluded that if the one set of persons were made to see that they have very little reason for their presumption, and the other as little for their fears, the chief bar to the introduction of concord between them would be removed. It was to contribute what little we could to the accomplishment of this favourite object, that in one of the first Numbers of this Journal we attempted to prove that France had added very little to her real strength by her new dominions; and that several of the other powers who stand as checks upon the ambition of that country had added materially to their strength, since the commencement of the French revolution. We have been eager, for the same purpose, to point out the means of improvement, and the commencement made in it in Austria; and in our last Number we produced some facts to prove the state of positive weakness in which France, held by some the terror of Great Britain, is actually placed.

We can hardly doubt that the fact which we there stated, demonstrating so extraordinary a difference between the produce of the land of Great Britain and of France, will appear scarcely credible to a great portion of our readers. That part at least of the statement which respects Great Britain cannot be called in question. The Minister indeed who presented to the Consuls the statement which we have given respecting France, was himself surprised at it, and induced to think that faithful reports had not been transmitted to him. It is evident, however, that the commissioners appointed to make the estimates in the several departments had greater motives to make their reports flattering than the contrary. The declaration of those in one department served in some measure as a check upon those in another. When they agree, therefore, in every part of France in the lowness of their valuations, it is a proof that the produce of the country is not much greater than that which they have represented it.

A number of other estimates and facts may be presented, which though, not so directly expressive of the territorial riches of the two countries, serve strongly to confirm the result which we have exhibited. Arthur Young, whose sound judgment, knowledge of political economy, and great practical skill in agriculture, render his opinions on subjects of this nature peculiarly valuable, concluded, on a minute and careful examination of particulars, that when he was in France, the whole capital employed in cultivating the soil of that country, was less than that employed in cultivating Great Britain by 19 millions sterling. Now the territory of France is computed at three times that of Great Britain. Every spot therefore of Great Britain, taken at an average, has more than three times the quantity of capital employed upon it which every spot in France has. But every body, who has paid any attention to the business of agriculture, knows, that one acre under rich and skilful cultivation furnishes a gross product greater than three acres of the same soil under poor and barbarous management; and if it affords a gross product so great, it affords a net product much greater, a much greater rent to the landlord, and a much greater profit to the farmer. On all land on which little capital is employed, the labour necessary to produce any thing is much greater in proportion to the returns, than on land which has been liberally improved by capital. The net produce of the latter accordingly is always a much larger proportion of the whole or gross produce, than that of the former. This view likewise of the subject should therefore lead us to the conclusion that the net produce of the whole soil of France falls not a little short of that of Great Britain; and is a strong proof that the estimates presented to the Minister of Finance were not greatly miscalculated.

That the capital, however, employed in the agriculture of France should be reduced to such a degree, that her territory, after receiving an accession equal in value to one fifth of the whole, should produce less, than before that accession, is a very extraordinary proof of the havoc of the revolution, and of the war. We think, notwithstanding, that the reality of the fact may be rendered very probable. We should think, on a gross conjecture, that it were no unreasonable supposition to conclude that one fifth of the whole stock of France had been consumed by the expence of the war, and the waste of the revolution. This is an allowance too little, exclusive of the consumption of what may be called the dead stock, the riches of the churches, houses, &c. which not being employed as the means of production, we do not reckon. But if even one fifth of the means of agricultural produce be supposed to be withdrawn, this accounts for a diminution of one fifth of that produce.

In addition to this, it may be made to appear that the consumption of agricultural stock has been much greater in proportion since the revolution than that of any other. It is known to have been the principle of that sect of political philosophers in France called the economists, that all taxes ought to be imposed on land, and that, so laid, they distribute themselves in the proper proportion over the whole community. The views of these philosophers directed in a great measure the proceedings of the Constituent Assembly, and had a great influence on the measures of the rulers who succeeded. By far the greater share of the taxes therefore were laid on the land. But the cultivators could neither sell their corn higher than they had formerly been accustomed to do, nor raise a greater quantity of it; they were under the necessity therefore of paying the additional taxes, levied upon them with the utmost rigour, by taking from their stock. In the various forcible contributions too which were made during the war, the cultivators of the land always suffered the most severely. A mere monied man, and even a merchant or trader, have it in their power to conceal great part of their property. The stock of the farmer cannot be concealed. While the former therefore generally contrived to save a part of what would otherwise have been taken from them, the latter was not only obliged to pay his full contingent, but to make up the deficiency occasioned by the artifice of the other. It is to be remarked besides, that the whole of the property, taken by the government for the sale of the confiscated estates, was withdrawn either from maintaining the commerce or the agriculture of the country, and the greater part of it from maintaining the latter.

It will be asked, what account do we then give of the reports, which we every day receive from eye-witnesses (as it is said) of the improved state of agriculture in France? We say, with perfect confidence, that they are the mistakes and misrepresentations of superficial and credulous people. The land in the neighbourhood of the great towns, where the circulation of capital must be considerable, and along some of the great roads, is better. This people see, and from this they draw a most unwarranted conclusion to the whole of the country. But it is certain that the boasted regulations even of the present government have been unfavourable to agriculture; and the extraordinary encouragement given to commerce and manufactures has turned from agriculture a considerable share of capital, which otherwise would have gone to it. In an account of the agricultural and commercial state of the department of the Lower Seine, one of the richest of all France, drawn up at the beginning of this year by Citizen Beugnot, the prefect of the department, he intimates this mistake to government, gently indeed, but pretty clearly too. "The manufactures in this department," says he, "dispute with agriculture the circulating capital, and the division is far from equal between them. Amid the productions of industry, in the period of its success, as well as of its decline, we seem to forget that agriculture itself is a manufacture, that it was the first of all manufactures; and that even now it yields produce only in proportion to the capital devoted to it, and the hands engaged in it. It is easy from this alone to judge," he adds, "that the union on the same farm of manufacturing and agricultural business is not so advantageous as is generally thought; agriculture has no time to lose in the rapid succession to the seasons; and it has made too little progress in the midst of our fields not to be impoverished by the share of labour and of money which manufacturing business requires."

From all these documents, and many more which might be produced, we think ourselves fully warranted to conclude that in Great Britain that part of the produce of the land which is over and above replacing the seed, and the maintenance of the men and cattle employed in cultivating it, is greater than the like surplus produce of all France; and that we possess in addition to this, and above France, the whole produce of Ireland, and of our transmarine dominions.

But if so great be the excess of the agricultural riches of this country above those of France, what must be the state of the comparison between the other riches of these countries! The manufactures and commerce of France, even before the revolution were not to be compared with those of Great Britain. But during the revolution, the commerce of France has been almost annihilated, and that of Great Britain has encreased to a magnitude which no country on earth ever exhibited. So completely was the foreign commerce of France destroyed by the war, that one of the five directors confessed that not a single merchant-ship of France was upon the ocean. In addition to this account of the external trade of France, we think it will not be uninstructive to our countrymen to present them with some facts expressive of the destruction sustained at the same time by the internal trade of that country. Our facts shall be perfectly authentic. They are drawn from the statistical accounts made up at the instance of the government, by the prefects of the departments, and presented to the Minister of the Interior.

We are sorry to be obliged to delay the publication of these facts; they shall be given in our next.

Biographical Account of Lord Redesdale, *High Chancellor of Ireland.*

The curiosity, so generally felt respecting the steps by which men of any considerable eminence have raised themselves, leads us to hope that the following particulars which we have received concerning this gentleman will not be unacceptable to our readers.

John Mitford, Baron Redesdale, was born at Mitford Castle, in the county of Northumberland, of an ancient family which flourished in that country before the Norman conquest. Sir John Mitford, knight, lord of Mitford Castle, in the time of William the Conqueror, was ancestor, through his only daughter, of the Bertrams, barons of Mitford, from whom, after a lapse of ages, the family possessions fell to the crown. Matthew the brother of Sir John, the co-temporary of the conqueror, was ancestor of another branch, the Mitfords of Rolleston, of whom Robert received from King Charles II. the grant of those lands which the elder branch of the family had lost. From him, in the fifth descent, was Robert Mitford of Mitford, who married Philadelphia Revely, daughter of George Revely, Esq. of Newton-Underwood, by whom he left issue, William, a colonel in the Hampshire militia, and John, the subject of the present memoir.

Many individuals of this family are said to have distinguished themselves in the transactions which respected the district to which they belonged, transactions of no little comparative moment in early days; and no names are said to occur with more honourable mention in the ancient historians of that province. The father of our judge aspired to no higher character than that of a worthy country gentleman. Having received, however, a good education, he valued highly this advantage, was particularly attached to pursuits of literature, and anxious to communicate to his sons that taste, and those advantages which he enjoyed and esteemed. Were more fathers endowed with the same taste and qualifications, we should have more able lawyers, more able soldiers, more able statesmen, more able churchmen; in short, our general business would put on a very different face. This merit in the father of Sir John Mitford is greater that he lived in a part of the country, where the sports of the field are in high estimation the votaries of which are always gross in ignorance, where, of course, he must have been a solitary instance.

It is somewhat curious, that notwithstanding the rude pursuits of the resident gentlemen, and the unsettled state in which the northern districts of England were kept for many ages, by continual wars and mutual depredations with their neighbours, there is no part of England, where are so many provincial schools, and where they have been of so much eminence. In this, as in several other particulars, the northern inhabitants of England, and the Scots, notwithstanding their furious animosities, seem to have copied from one another.

In one of the most celebrated of these provincial seminaries, Lord Redesdale received the rudiments of his education: and this is one, among many instances, of the important effects, not respecting the lowest only, but the very highest departments of national transaction, which are derived from those neglected, but most important institutions, provincial, country, and parochial schools. Our young candidate for future eminence is said to have been peculiarly fortunate in his master, who with great skill trained him to surmount the difficulties which obstruct to the young mind the passage to learning; and which young Mitford is not said to have surmounted with great ease. His progress, we are told, was not rapid; but he soon discovered a persevering temper, soon acquired a thirst for knowledge, his judgment appeared uncommonly mature at an early period; and, much sooner than most boys, he was sensible of the beauties of the Roman authors.

As he was a younger brother, some pursuit for life, as the source of subsistence and fortune, was to be determined on. On being consulted by his friends, and after some deliberation, he made choice of the law. Difficulties in this profession presented themselves in abundance; the abilities and labour requisite to attain eminence, as well as the time and expence of the education. But young Mitford was not to be deterred. An opportunity was sought, which might at once furnish him with the rudiments of instruction in this profession, and enable him to judge by experience, if it suited his disposition. Mr. Fox, a clerk in the Six Clerks Office, disposed of his seat and business to Mr. Mitford.*

* In order that the public in general may form some idea of

He was not long in this situation, before he entered his name as a student of law in the books of the Inner Temple. The duty of his office, as a clerk, required the principal part of his time. The remainder was chiefly occupied, first, in copying out precedents, cases, and opinions, for his own instruction; secondly, in reading the best English authors; and thirdly, in drawing, his favourite amusement. The picturesque beauties of his native country were well calculated to draw forth this talent, for which he was indebted to nature alone; and which he has employed with a masterly hand in delineating some of her most majestic and interesting scenes. Beside these occupations, the enjoyments of friendship and society entered for some share into the employment of the time of the young lawyer.

While a student of law he was appointed clerk of the inrollments in chancery, an office which he held till he was called to that of attorney-general. This was attended with one disadvantage, that after having answered all his terms, it condemned him to pass two *silent* years, as they are termed, before he could be called to the bar. This interval he resolved to seize to visit Italy, with intent to gratify his taste in viewing the picturesque scenery of nature, and to improve his hand in transcribing her beautiful forms. The landscapes, which he executed in this journey, are said by the best judges who have seen them, to vie with the productions of the first masters.

On his return he entered on the active duties of his profession. He had one disadvantage, of a very untoward nature, to contend with,—an impediment in his speech. But he was not of a temper to be easily discouraged, and by perseverance and care he triumphed over even this difficulty. He took chambers in Lincoln's-Inn, and entered on his profession with the spirit of a man, who resolved, that if he could not command success, nothing should be wanting on his part to deserve it. He knew that connections might indeed assist him in the commencement, but that merit, in the long run, must bear him up. His first exhibition was on the northern circuit; and the first brief which he held was for Lord Beverley, in a cause at Newcastle. He acquitted himself with credit. But after some experiments, he judged that the court of chancery was the field most suited to his talents. He was soon distinguished as an equity draftsman; business flowed in apace, which encreased, instead of relaxing his attention. He introduced a species of novelty in this department of business, confining himself merely to the detail and arrangement of facts; leaving all argumentation, with which he thought the disclosure of facts ought to be unincumbered, as the province of the counsel. The praise of authorship too he either thought honourable to his name, or favourable to his fortune, and he produced a work on *Chancery Pleadings* of considerable merit and utility.

Honour and riches poured in upon him with unusual rapidity at last; and it may be mentioned that he applied the first fruits of his success to the gradual redemption of a portion of his family estate.

[*To be concluded in a future Number.*]

this department, we have subjoined the following note, taken from the "first report of the public records." Ordered by the House of Commons to be printed, 4th July, 1802.

It appears by the return made to the Six Clerks to the order of the committee of the House of Commons in the year 1731, that each clerk then had a distinct agent or deputy, whom he employed under him, to take care of the records in his particular division of the Six Clerks Office, and to make calenders thereof, which was found to produce great disorder and irregularity, each clerk, or his agent or deputy so employed, having observed a different mode in the arrangement of his records; and therefore the Six Clerks afterwards concurred in appointing one person as their clerk or agent, whose duty has been under the immediate superintendance of the Six Clerks, to take care of the several records, in each of the said six several divisions. The pleadings which are from time to time brought to be filed in the Six Clerks Office, remain in six small rooms, (usually called the Six Clerks studies) communicating with their office, for the space of six terms; and the sixty clerks have liberty during that time, as clerks in court for the parties, to resort thereto, and take copies thereof, without the payment of any fee to the Six Clerks for searching. But after the expiration of six terms, all pleadings, except bills to which no answers have been put in, usually called single bills, and single bills after the expiration of eight terms are returned to the Six Clerks record room, in order to be arranged in bundles and indexed; which service is performed by the immediate clerk or agent of the Six Clerks, with occasional assistance, and under their superintendance. And such clerk or agent attends daily, from the hour of ten in the morning till two in the afternoon, and from six in the afternoon till eight, (holidays excepted) in the common room adjoining to the Six Clerks office, wherein the six clerks attend themselves for the transaction of their business (they having for several years past employed no deputies, but doing personally the whole of their duties, with such assistance as is before mentioned). The clerk or agent so employed by the Six Clerks has no salary, allowance, or emolument, in respect of such employ, paid to him by the public, except that the Six Clerks, (in addition to the allowance which they make to him for his general employ under them) empower him to take to his own use the whole fees due to them for searches and copies of such records as belong to them to copy, which copies are made by him, and afterwards signed by one of the Six Clerks. The copies so made are of records in causes not in progress, but determined (the sixty clerks being entitled to make copies, which are also signed by the Six Clerks, after being examined by them with their filing books, of all pleadings in suits whilst they are depending as clerks in court, for some of the parties) and the Six Clerks have annexed a table of the several fees demandable by the Six Clerks, or their immediate clerk or agent, for each search or copy of the said records, &c. so deposited in their record room, or attendance therewith, together with an account of the net annual amount of such fees, upon an average of the last three years ending at Christmas last."

NOTICES.

The Gazette of Wednesday night announces that a reconciliation has been effected between the Porte and the Bays of Egypt, by the intervention of the English ambassador at Constantinople; a sufficient proof that the credit of this country is high at that court, notwithstanding the insinuations of the French Journals.

France.—It is reported in Paris, that a new organization is to be given to the Spanish navy. The condition of the sailors is to be improved, and arrangements are to be formed to insure in future the regular payment of their wages. This it seems was greatly neglected in the late war, which occasioned a great many sailors to desert. It is known that a pardon has been granted to them, as well as to the soldiers, on condition that they return in the space of six months.

The French Government has granted to the Merchants of Turin the free exportation of wrought silks from Piedmont.

Sweden.—According to the memoirs published in the last volume of the Transactions of the Royal Academy of Sciences of Stockholm, noticed page 368 of this Number, the population of that kingdom is as follows: that of Stockholm amounts to 74,578 souls, or 13,207 families, and of Gottenburgh to 12,017 souls, or 2180 families. The sum total of all the inhabitants of cities and towns is nearly 285,160 souls, and 49,859 families. Of 200 children born in towns

and cities, 97 are boys and 103 girls. The grand total of the population of Sweden was in 1772, 2,610,661 souls, and in 1795, 3,043,714, of which number 285,164 resided in towns and cities, and 2,758,550 in the country. As to the different classes of society, there were in 1780, 11,931 nobles, 10,232 clergymen, 1206 merchants, 779 mercers, 9797 dealers and chapmen of all sorts and descriptions, 2481 manufacturers, 23,061 artificers, 20,126 mariners, 38,620 servants employed in towns and cities, 1,252,307 peasants, 15,950 civil officers, 6566 military officers, 807 artists, 7227 students at public colleges, 174,130 non-commissioned officers, privates and seamen. The number of marriages amounted in 1780 to 506,915, and in 1795 to 547,573. Of late years the number of marriages has so considerably decreased, that out of 27 persons 10 only marry. The greatest number of births fall in the months of March and September, and the fewest in June. The greatest productive force, therefore, manifests itself in January and July, and the least in December. The greatest number of men die in May, and of women in February; the greatest mortality upon the whole prevails in spring.

Holland.—Professor A. Kluit at Leyden, who on the 6th February, 1802, was restored to his chair, has edited a history of the Dutch constitution previous to the year 1795, intended to show that the late States-General were the lawful representatives of the Dutch people; that consequently the latter possessed a representative form of government long before the French invasion, and enjoyed all the *liberty* and *equality* consistent with that form of government and with the peculiar complexion of the country.

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MIDDLESEX POLL.—This Day is Published, Price 10s. 6d.

COPY of the POLL for the Election of two Knights of the Shire to serve in Parliament for the County of Middlesex. Began at Brentford, on Tuesday July 13th, and ended on Thursday, July 29th, 1802. CANDIDATES.—William Mainwaring, Esq.; George Byng, Esq.; Sir Francis Burdett, Bart.

Printed for John Stockdale, 181, Piccadilly. Of whom may be had, Nos. 1 to 12, price One Shilling each, of the *Parliamentary Register* of the present session. By WILLIAM WOODFALL.

PUBLICATIONS ADDRESSED TO THE LABOURING POOR.

1. HINTS FOR THE IMPROVEMENTS OF TRUSSES. With a description of a Truss of easy construction and slight expence, for the use of the Labouring Poor. Price 9d.—II. The Villagers' Friend and Physician, price 1s.—III. The Way to Health; being a selection of maxims for the preservation of Health, from the Villagers' Friend and Physician. On a single sheet. Price 6d.

By JAMES PARKINSON, Hoxton.

Printed for H. D. Symonds, Paternoster-Row; Murray and Highley, Coxe, Callow, Boosey and Arch.

Where may be also had, by the same Author,

IV. Medical Admonitions to Families on the preservation of health and removal of disease. Price 7s.—V. The Hospital Pupil, an Essay intended to facilitate the study of Medicine and Surgery. Price 3s. 6d.—VI. Dangerous Sports, a Tale, addressed to Children. Price 2s. Just Published, the third Edition. Price 6s.—VII. The Chemical Pocket Book, or Memoranda Chemica. This work forms a plain and compendious system of chemistry, in which are included the latest opinions and discoveries.

A SPLENDID NATIONAL WORK.

To Noblemen and Gentlemen Sportsmen; and admirers of the Fine Arts in general. On the First of April will be Published, elegantly printed in super-royal Quarto, and enriched with two superb Engravings; viz. the Pointer; and the Greyhound-Bitch, and her Young, No. I. price 5s. (to be continued Monthly) of a new and splendid Work, entitled

THE SPORTSMAN'S CABINET; Or, a correct delineation of the various Dogs used in the Sports of the Field, including the Canine Race in general; consisting of a series of rich and masterly engravings of every distinct breed, from original paintings taken from life, purposely for the work, by P. Reinagle, Esq. R. A. and engraved in the like manner by Mr. John Scott, (by whom the plates to Mr. Daniel's Rural Sports were executed.) Interspersed with beautiful Vignettes, engraved on Wood, by Mr. C. Nesbitt, forming a collection of superb sporting subjects, worthy the attention of amateurs of Field Sports, and admirers of the Arts in general.

This Work will be illustrated by a comprehensive, historical, and systematic description of the different species; their qualifications, peculiar properties, and predominant propensities; the various pursuits and agreeable sports to which they individually become appropriate, and the means by which they are respectively trained. Occasionally interspersed with authenticated anecdotes of the sagacity, memory, fidelity, affection, courage, perseverance, and every other distinguished feature appertaining to each particular kind. Including such remarks upon Greyhounds, Hunters, Pointers, Spaniels, and all Dogs engaged in the Sports of the Field, as will necessarily comprehend a collateral view of Hunting, Coursing, Shooting, &c. &c. with a complete review of the different diseases to which they are subject, and the most approved and efficacious modes of treatment and cure. Concluding with a scientific disquisition upon the distemper, canine madness, and the hydrophobia. The Literary Department is executed by a *Veteran Sportsman*, whose chief object is to make it the most complete book of reference on the subject ever published.

The public are respectfully informed that the above work is prosecuted under the immediate direction of several distinguished characters in the sporting world, and patronizers of the Fine Arts; and that gentlemen of the first abilities in the respective departments are retained in the prosecution of it; to be comprized in about Twenty-four Numbers; each of which will contain Three Sheets of elegant Letter-press, enriched by engravings on copper and wood, with appropriate scenery; and neatly done up in turf-green patent paper; forming, in the whole, Two handsome Volumes in Quarto.

Noblemen and Gentlemen desirous of possessing early impressions of the Engravings, are requested to forward their orders to the publisher, or to their respective Booksellers, by whom the work will be punctually delivered in the order subscribed for, and where Prospectuses may be had *gratis*.

London: Printed and Published for the Proprietors, by J. Cundee, Ivy-lane, Paternoster-Row.

In the Press, and speedily will be Published, in One Volume, 8vo. Price 8s. Printed for Bell and Bradfute, Edinburgh; G. and J. Robinson, London; Gilbert and Hodges, Dublin; and F. Perthes, Hamburgh,

ANNALS OF MEDICINE, for the Year 1802. Exhibiting a concise view of the latest and most important Improvements in Medicine and Medical Philosophy.

By ANDREW DUNCAN, Sen. M. D.
And ANDREW DUNCAN, Jun. M. D.
Fellows of the Royal College of Physicians of Edinburgh.
Vol. IId. Lustrum IId.

This annual Volume ought, according to the plan hitherto followed by the Editors, to have appeared about the first of January, 1803. But from the concurrence of several unforeseen and unavoidable circumstances, the publication has been necessarily delayed. The Editors, however, flatter themselves that their readers will receive ample compensation for this delay, from the importance of several articles which the Volume contains.

Lately published by Bell and Bradfute, and G. and J. Robinson,

Carminum Macaronicarum delectus in usum Ludorum Apolinarium. Fasciculus Secundus.

This Fasciculus contains the Monk and the Miller's Wife, with a Translation into Latin. The Hudibrastic History of John Bresy. The Epitaph of Dr. Thomas Young, and several other original articles.

NUMBER 13.] THURSDAY, MARCH 31, 1803.

PHYSICS.

1. *Observations on Aphides. By Mr.* William Curtis.*

IGNORANT and superficial men are extremely apt to despise those parts of knowledge with which they themselves are unacquainted, and to treat with contempt such persons as have devoted themselves to their cultivation especially if they consist in minute and apparently insignificant objects. As if the wisdom of the Author of Nature were not as conspicuous in the smallest, as it is in the greatest of his works; or the lessons of instruction to be derived from the minutest objects were not equally numerous and important. The botanist and the entomologist have been particularly ridiculed. Even the most ignorant can sneer at the *plant-hunter*, and the *butterfly-catcher*; and wonder at the absurdity of human creatures, and philosophers too, giving themselves a world of fatigue, and even exposing their lives, for so insignificant an object as a new plant, or an unknown insect.

A little reflection, however, must be sufficient to convince our readers, that these studies are by no means unimportant. The vegetable kingdom is not only a most beautiful and delightful part of nature, but it is absolutely necessary for the support of the animal. Agriculture is intimately connected with the study of plants, and it would improve much faster if our farmers were botanists. But to mention all the uses of vegetables would be unnecessary. Suffice it to say, that for some of the most curious discoveries in the science of physiology, we are entirely indebted to the botanists.

The insect tribes, insignificant as individuals, become formidable by their numbers, and frequently lay waste the labours of the husbandman, and ruin his prospects of a crop; while their minuteness enables them to escape the detection of all but the experienced eye of the entomologist. The farmer sees the effect. His corn suddenly fades, and sickens, and blackens; his crop fails; and so far from being able to apply a remedy, he is even ignorant of the cause. We cannot too much recommend the study of entomology to the agriculturist. Nature in general has provided a remedy for these depredations; but the ignorant husbandman is too apt to counteract her designs, and to persecute, as enemies, the very animals who are preparing to give him the most effectual assistance. The curious observations on the Aphides, by the late Mr. Curtis, with an abstract of which we now proceed to present our readers, will afford a good illustration of these remarks.

When plants assume a sickly appearance, or are disfigured by disease, they are said in common language to be *blighted*. The *blight* of course, since it has so general an acceptation, must proceed from different causes. But the greater number of the diseases of plants are occasioned by insects, and Mr. Curtis has ascertained that the tribe of aphides is by far the most general cause of the *blight*.

These insects have something so peculiar about them, and deviate so much from the usual course of nature, that they have arrested the attention of naturalists in a remarkable degree. Reaumur, De Geer, and Bonnet have published very curious histories of them; especially the last, to whom we are indebted for the most interesting facts. Mr. Curtis has confirmed and augmented the discoveries of these philosophers.

The aphides are small insects, usually of a green colour, though some of them are black; often without wings, though not always, and remarkably torpid, scarcely appearing to change their place. They cover the under leaves of plants in immense swarms. About 50 species are known. Linnæus has named them from the plant which they inhabit. In some parts of Britain they are known by the name of *lice*. They live entirely on vegetables; the loftiest tree is no less liable to their attacks than the most humble plant. They prefer the young shoots, and on that account often insinuate themselves into the heart of the plant, and do irreparable mischief before they are discovered. Every person must have observed them on cabbages and other kitchen vegetables. Sometimes the root is the object of their choice. Mr. Curtis observed whole crops of lettuces nearly destroyed by their attacking the root. Some attach themselves to the bark of trees, as the aphis salicis, which is the largest species.

They are much more abundant some years than others. In 1793 they were the chief cause, and in 1798 the sole cause, of the failure of the crop of hops. In 1798 beans were almost wholly cut off by them. In 1794, a very dry season, the hop was free from them, while pease and beans suffered severely.

The aphis is provided with a hollow pointed proboscis or trunk, which, when the animal is not feeding, folds under its breast. With this instrument it pierces the plant, and sucks out its juices. Hence the plant fades and perishes, being deprived of its nourishment. Or at least the leaves are curled up and distorted; and deprived of their beauty and health.

The aphis is viviparous, except in cold weather, when it produces eggs. The young animal is ushered into the world with its feet foremost, and by these it attaches itself to the plant on which it is produced, contiguous to the rest of the animals. The sexual intercourse takes place among them unfrequently, and only at a certain season of the year, and from a female once impregnated many successive generations are produced without any farther impregnation. Bonnet took the aphides, as soon as brought forth, and kept each individual separate. The females of these

* Linnæan Transactions, vi. 75.

brought forth abundance of young. He treated these in the same manner: the produce was the same. Thus he proceeded to the ninth generation with the same success, and he thinks it might be carried on much farther. The excrementitious matter voided by these animals is not the least extraordinary part of their history. On looking steadfastly for a few minutes at a group of them, while feeding on the bark of the willow, one perceives a few of them elevating their bodies, and a transparent substance dropping from them. Mr. Curtis ascertained that this proceeds from the extremity of the anus. On placing a piece of writing paper under these insects, it soon became spotted, and the whole surface at last assumed a glossy appearance. On tasting this substance, he found it as sweet as sugar. The flies, ants, wasps, &c. devour it as soon as it is produced, but the bees appear to disregard it. It is this matter which in hot and dry weather, when the aphides are most abundant, covers the foliage of trees and plants, and is known by the name of *honey-dew*. When this matter has dropt from the aphides for some length of time, it gives to the surface of the foliage a black sooty appearance.

In most seasons the natural enemies of the aphides are sufficient to keep them in check. But in some years they are multiplied to such an excess that they do irreparable injury to the crop. In severe winters they are considerably diminished. But in mild winters, as they continue to propagate abundantly, they increase, and get the start of their enemies to such a degree, that it is scarce possible to root them out. Violent rains have been supposed to clear the plants of them. But Mr. Curtis found that aphides were not killed, though the branch on which they lived was kept 16 hours under water. Tobacco smoke destroys them effectually, without injuring the plants. This remedy may be used with advantage to clear hot-houses of these animals, but cannot be applied in the open air, as the smoke must be of some hours continuance to produce the effect.

But the natural enemies of the aphides are the most important check. The principal of these are, the *coccinella*, the *ichneumon aphidum*, and the *musca aphidivora*.

All the species of coccinella feed on the aphis; but the *bipunctata*, the most common of all, does the greatest execution. This insect, well known to every person by the name of *lady-bird*, feeds entirely on aphides, both in its *larva* and perfect state. During the severity of winter, it secures itself under the bark of trees or elsewhere. In spring the female deposits its eggs on the foliage of plants, in great numbers. From these in a short time proceeds the larva, a small grub of a dark leaden colour, spotted with orange. These may be observed in the summer season running pretty briskly over all kinds of plants, and devouring the aphides wherever they find them. The same may be observed of the lady-birds in their perfect state: and as they are very numerous, they contribute wonderfully to diminish the number of aphides. This useful insect is a kind of favourite with children; but few persons are aware of the obligations under which we lie to it.

Another very formidable enemy of the aphis, is a very minute, black, and slender ichneumon fly, the *ichneumon aphidum* of Linnæus. The female ichneumon settles on a stalk, or leaf, more or less covered with aphides; marches slowly over their bodies, feeling with its intennæ for one of a suitable size and age; which having discovered, it pushes forward its body, and with a fine instrument punctures and deposits an egg in the body of the aphis. Having done this it proceeds, and in like manner deposits an egg in the bodies of many others. The egg quickly hatches, and becomes a maggot, which feeds on the substance of the aphis, and having devoured the whole of it, the skin excepted, it changes to a chrysalis, from which in process of time proceeds a fly. This fly eats its way out of the aphis, leaving the dry inflated skin, like a small pearl, adhering to the leaf. In general, the torpid aphis submits quietly to this fatal operation; but some of them endeavour to avoid the ichneumon with great address.

No genus of insects feed on such a variety of food in their maggot state as the *musca* or fly. One division of them, called the *muscæ aphidivoræ* by Linnæus, feed entirely on aphides. The species are numerous, and have mostly their bodies variegated with transverse stripes. Their females may be seen hovering over plants infested with aphides, among which they deposit their eggs on the surface of the leaf. The maggot, as soon as produced, feeds on the younger aphides, and as it increases in size, attacks and devours those which are larger.

Besides these animals there are others which contribute more or less to diminish the number of aphides. The larva of the *hemerobius* feeds on them as well as that of the musca aphidivora, but their number is comparatively small. The earwig also destroys aphides, especially such as reside in the curled up leaves of fruit trees. Some of the smaller soft-billed birds likewise may be named as enemies of these insects.

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2. *Observations on the Curculio Trifolii.* *By* William Markwick, *Esq.**

The observations, which we mean to offer next to our readers, afford another instance of the destructive power of insects to the agriculture of this country, and prove the necessity of a minute inquiry into the causes of the failure of crops.

Mr. Markwick had ordered a field of clover, consisting of about eight acres, to be sowed for seed. His servant on the ninth of August informed him that he had examined some of the heads, and found the maggot in them. On this information he was induced to save only a part of the field, and to order the rest to be mowed for hay. On examining the clover, he found in many of the heads several small white maggots, or larvæ, invariably placed on the outside of the base, beneath the individual calyx of each floret, eating through the bottom, and thereby destroying the germen or rudiment of the future seed. These larvæ have a white body, a black head, and three small prominences on each side, which Mr. Markwick supposes may supply the place of legs.

* Linnæan Transactions, vi. 143.

He placed a number of the blighted heads of the clover in a box, which was carefully covered with gauze, to prevent any insect from getting either in or out, and found, on opening the box ten days after, a great number of small blackish weevils running about in it, and on examination discovered many of their chrysalids sticking to the stem, exactly where the larvæ had been. He even detected one or two of the weevils crawling out of their chrysalids. The weevil has a long back, whitish belly, and yellow legs. The chrysalis differs little from the larva except in being egg-shaped and motionless. Mr. Marsham has shewn this insect to be the *curculio trifolii* of Linnæus. Fabricius has made it an *Apteladus*; Mr. Marsham thinks without reason; and has added nothing to its history.

To show the damage done by this little insect, Mr. Markwick states the following facts. In 1798 the seed produced by a field of clover, was in value about £12 sterling. The seed yielded in 1800 by the same quantity of clover, was only worth £19. The first amounted to 16½ bushels, the second to 7½. This difference was owing to the *curculio*.

Mr. Lehmann* has added several circumstances to the history of this little insect. After it is produced in its perfect state, it soon conceals itself in the small holes of fences or in the bark of trees, where it reposes during the winter. But its enemies are so numerous, that few escape them. The wren, the red-breast, the nun, and other birds of the titmouse kind, feed upon them. Such as escape their bills are among the first partakers of the universal life which nature excites in spring. The fecundity of these insects is prodigious. And the abundance of the heads of clover enables them to deposit their eggs in great numbers, which as they are destitute of wings would be impossible on account of their numerous enemies, if they had to search for flowers sparingly spread over a large field. This insect seems destined by the Author of Nature to prevent the boundless increase of clover, while it is itself circumscribed by the numerous enemies constantly on the watch to devour it.

3. *On the comparative Quantity of Labour which a Man is capable of performing in a Day, according to the Mode in which he employs his Strength. By* Coulomb.

The smallest attention to the labouring part of the community is sufficient to demonstrate, that the quantity of work which a man is capable of performing, in a given time, differs according to the difficulties which are to be overcome. If he has to carry a load upon his shoulders, it is obvious that the load must be much lighter, if it is required to transport it to the top of a hill, than if it is merely to be removed to a distance on level ground. If a piece of work can be performed by the feet alone, the labourer may continue much longer busy, than if he has to make use of his hands also. Now as it frequently happens that the same work may be performed different ways, it becomes a point of great consequence to be able to chuse that method which gives us the greatest product under the smallest fatigue. In the second volume of the Memoirs of the National Institute of France, Mr. Coulomb, eminent for his discoveries in electricity and magnetism, has published a curious set of experiments and observations on this subject. Of these we shall present our readers with an abstract.

The quantity of work, which a man performs, is obviously measured by the resistance to be overcome, multiplied by the velocity and the duration of the action, or it is measured by the product of the resistance multiplied by the space through which it has passed in a given time. It comes to the same thing whether a man raise 1lb. to the height of 10 yards, or 10lbs to the height of 1 yard; since in both cases it is the weight of a pound to be raised ten times to the height of a yard. To obtain the greatest possible advantage from a man's labour, it is necessary that the effect produced divided by the fatigue should be a maximum.

The *action* of a man, while at work, may be considered as the pressure which he exerts multiplied by the velocity and the time: its quantity may be represented by a weight falling from a certain height in a given time. When a man, in producing a certain quantity of action in a day, undergoes all the fatigue which he can bear without injuring his health, this quantity of action must be considered as the labour which he is capable of performing in a day.

1. In going up stairs a man can ascend at the rate of about 30 feet per minute, when he has not in all above 70 feet to mount. But he cannot continue at this rate. Mr. Coulomb estimates the mean weight of a labourer at 151lbs avoirdupois. This weight of course he raises 10 feet in a minute. His labour in a minute is equal to $150 \times 10 = 1500$lbs, raised to the height of one foot. Were we to suppose him capable of continuing this labour 4 hours in the day, his day's work would amount to 1,760,160 lbs raised to the height of a foot. But this calculation is hypothetic. From the account which Borda published of his journey to the summit of Teneriffe, Coulomb calculates that a man is capable of mounting in a day to the height of 2913 metres, or very nearly 8557 feet: this multiplied by 151, the weight of a man, gives us 1,722,463lbs raised to the height of a foot for the quantity of action which a man is capable of performing in a day, when ascending a stair or hill without any burthen whatsoever.

2. Mr. Coulomb never could procure a man who could carry in a day more than six loads of wool up stairs to the height of 40 feet. Each load weighed 161¼lbs, and was carried up at 11 times. Each time, if we count the ropes, &c. the labourer carried a weight of nearly 150lbs. If to this we add his own weight, we shall have 301lbs for the weight which the porter carried every time to the height of 40 feet. He made 66 ascents in the day. Of course his day's labour is equal to $304 \times 66 \times 40 = 801{,}760$lbs raised to the height of 1 foot. Hence we see that the action which a man can perform in mounting stairs without any load: is to that when he is loaded, nearly as 188 : 100.

3. Mr. Coulomb was informed by the strongest of the wool carriers that the greatest quantity of labour

* Ibid, p. 174.

which he had ever performed in a day was the carrying of 17 loads of wood up one pair of stairs, to the height of 5 metres or 16½ feet, and that this exhausted him so much that he could not work at all the two succeeding days. The quantity of action in this case was = .501 × 187 × 16,5 = 937,992lbs raised to the height of 1 foot. A quantity much inferior to that produced with much less fatigue by mounting stairs without any load.

When a man carries a load up stairs, he raises his own weight along with it. The only useful part of the labour is the burthen which he raises. From the preceding observations it is evident that the action is greatest when there is no burthen, and in proportion as this burthen increases, the total action which he can perform in a day diminishes, and it would be nothing at all if the burthen were encreased to a certain weight. Between these two extremes there must be a certain load which will make the quantity of useful labour in a day a maximum. Mr. Coulomb finds by calculation that this weight is about 110lbs avoirdupois. The useful action in this case amounts in a day only to 123lbs raised to the height of 3280 feet; whereas when a man ascends stairs without any load, the action in a day amounts to 451lbs raised to the same height, which is almost 4 times greater. Hence it follows that when a man carries loads up stairs, nearly three-fourths of the useful action are thrown away. This kind of labour therefore is nearly 4 times as dear as it would be, if a man, after having mounted the stairs without any load, were to let himself down again in such a way as to raise by his descent a weight nearly equal to that of his body. Hence also it follows, that more work can be performed in a day by carrying moderate burthens than by carrying those that are heavier.

4. Men accustomed to travel, can, according to Coulomb, walk at the rate of 50 kilometres, or nearly 30 miles a day, without fatiguing themselves too much. In this case the action amounts to 154 × 30 = 4620lbs avoirdupois carried to the distance of a mile. To compare this with the action of a man obliged to carry a load to a certain distance, Mr. Coulomb found, upon putting the question, that no porter would undertake to carry a weight of 55 kilogrammes to the distance of 2 kilometres above six times a day; and even this labour they could not support for two successive days. This, reduced to the English standard, amounts to 128lbs avoirdupois carried to the distance of 3280 feet, or nearly one mile and a quarter. Add to this 154lbs = the weight of the man, and we have 282lbs for each carriage; and the day's action amounts to 282 × 1,25 × 6 = 2115lbs carried to the distance of a mile. To this must be added the action wasted in returning six times over the mile and the quarter for the new burthen. This amounts to 7½ miles, or the fourth part of a day's labour. The 2115lbs are only then ¾ths of the labour. Consequently the action of a man carrying 128lbs amounts in a day to 2816lbs carried to the distance of a mile. In the former case it was 1650lbs. Consequently the action when a man walks without any incumbrance is to his action when carrying a load nearly as 7 to 4. Mr. Coulomb has shewn by calculation, that a man's daily labour on a level surface is a maximum, when the burthen, which he carries, amounts to a hundred weight; provided he travels on without returning again. But if he carries a number of burthens the same distance, and returns again empty, the labour is a maximum when each burthen amounts to 134lbs. The useful action when a man travels without incumbrance is to the useful action when he carries a load, or to the load which he carries, nearly as 5 to 1.

5. By comparing the above observations, it is easy to see that the action performed when a man mounts stairs, is to that performed when he walks on level ground, only as 1 to 17. The step of a stair-case may be supposed usually about 5 inches high. In mounting a single step a man undergoes the same degree of fatigue as in walking horizontally 17 times 5 inches, or 7 feet, or about 3 steps and a half.

6. According to Vauban, a man with a wheel-barrow is capable of transporting in a day 517 cubic feet of earth to the distance of 90 feet. This he does at 500 times? Of course he passes over rather more than 9 miles loaded, and as much in returning with the empty wheel-barrow. Mr. Coulomb has found by trials, that the weight which a man sustains when he supports a loaded wheel-barrow amounts to about 141lbs, when empty to 111lbs. The force necessary to set it in motion on a horizontal surface is from 4 to 6lbs but it varies according to the skill of the workman. A loaded wheel-barrow usually contains about 154lbs. Hence the useful action in a day amounts with a wheel-barrow to 154 × 9 = 1386lbs carried to the distance of a mile. We have seen that on his back a man can only transport 900lbs to the distance of a mile in a day. Hence it follows that 100 men with wheel-barrows will do as much work in a day as 150 men who carry the loads on their backs.

7. The action which a man is able to perform in a day, when he raises weights by means of cords, as in drawing water out of a well, hoisting up stampers and letting them fall down again, amounts to a weight of 150lbs raised to the height of rather more than three fifths of a mile.

8. Mr. Coulomb calculates the daily action performed in turning a winch, at 250lbs raised to the height of a kilometre, or rather more than three-fifths of a mile.

From these results it follows that the actions performed by men in mounting stairs without any load, in raising weights by pullies, and in turning a winch, are to each other nearly as the numbers 8, 5 and 5.

9. Mr. Coulomb observed that a labourer whom he employed usually sunk his spade 25 centimetres in the earth, raised 6 kilogrammes of earth, which he elevated to the mean height of 4 centimetres. These numbers reduced to the English standard make nearly the depth of 10 inches, the weight of 13 pounds raised to the height of 1½ inches. He threw up 20 spadefuls in a minute. The force exerted in making the spade cut the surface was about 44lbs. The effort to continue it till it reached the proper depth amounted to 26lbs. In a good day he turned over a surface of 191 feet square, and turned up 188,512lbs of earth.

From these data Mr. Coulomb estimates the daily action of the labourer at 220lbs raised to the height of a kilogramme or nearly ¾ths of a mile.

The fatigue of digging may be considered as compounded of that produced by mounting stairs and that produced by drawing a pulley.

4. *K. A. Schousboe, Amnaerkninger over plante-riget, &c.* Observations on the Vegetable Kingdom, collected on a journey in the Empire of Morocco, in the years 1791 to 1793. Copenhagen.

The author of this interesting work commences with some general remarks on the climate and soil of Morocco, from which it results, that the former is rather temperate, and the latter fruitful. With the exception of apples, pears, and cherries, which will not succeed, all other species of fruit and garden-plants, such as water-melons, artichokes, French-beans, &c. are excellent; but culture is in general neglected. The forest-trees are all of a middle size; the large woods in the northern districts consist of oaks and pines, but in the southern parts date-trees are found.

Among the plants which grow spontaneously, and are extremely numerous, the author has observed many non-descripts, some of which we shall introduce to the notice of our readers.

1. *Bromus Longifolius*; this plant differs from Wildenow's *Bromus Ramosus* by the greater length of its leaves.

2. *Arundo Donax*; of this species of reed writing-pens are made.

3. *Zizyphus Lotus*; the fruit of this plant is the true *lotus* of the ancients.

4. *Elæodendron Argan Retz*; this is a tree but little known, whose fruit contains some white kernels, which are roasted, ground, and pounded, in order to extract from them the oil of *Argan*, which is generally used by the inhabitants for dressing their victuals. The exterior shell of the nut affords a very wholesome food for camels and black cattle.

5. *Iuncus Maritimus*; this species differs from *Iuncus acutus*, by a lesser size, and by the seminal capsules being pointed and as long as the calix.

6. *Lausonia Inermis*; an Egyptian shrub, which is cultivated here for the purpose of extracting, by means of acids, from the dry leaves a juice, which the inhabitants make use of for giving the hands and feet of women and children a reddish yellow colour.

NOTICES.

At the Royal Society on Thursday 24th inst. James Forbes, Esq. and Mr. John Pearson were balloted for and elected Fellows.

The concluding part of Mr. Davy's Paper on Astringent Vegetables was read.—Also a Paper by Mr. Shraeter, giving an account of some Observations on the Ring of Saturn. Mr. S. thinks that the ring revolves in a period of thirty years.

We are informed that Seamen have long experienced the fact mentioned in the *ninth* Number of our Journal, *that the Ocean becomes cold in proportion as its water shallows.* So far back as the year 1759, an old seaman, then on board a merchant ship from Bristol, was always accustomed to ascertain the proximity of soundings, by plunging his hand into a pail of sea water.

Water Spouts.—A Naval Correspondent observes, that those Scientific men appear deceived, who assert *that Sea water does not ascend by means of water-spouts:* for according to his repeated observations, made in the face of nature, and not deduced from closet theories, the contrary has been fully ascertained. When the cloud indeed is saturated, the weight of water becomes so great, that it naturally descends; but previous to this it has ascended to the extreme height of the cloud. A *Water-spout* therefore acts as an exhausted receiver, and particularly when there is little wind.

Great apprehensions are entertained for the life of Sir W. Hamilton.

Lord Sheffield is elected President of the Board of Agriculture.

The Society of Arts and Sciences at Utrecht has prepared the following prize-question for the year 1808:

"What is the true nature of the electric matter? Is it a compound? What are the chemical changes which it undergoes, when united with other bodies, and which it produces in those bodies?

"The prize, to be adjudged on the first October 1808, consists of 30 ducats, and the memoirs are to be addressed to Dr. Luchman at Utrecht."

Mr. F. C. Wendland has lately published at Hanover the sixth, seventh, eighth, ninth, and tenth numbers of his valuable work, entitled—"*Ericarum Icones et Descriptiones.*" The different species, thirty in number, are characterized in the Latin language, and described in German. The plates are designed with great correctness, and coloured after nature. The species described in these five numbers are, with the exception of two, all natives of the Cape of Good Hope.

Doctor *L. Careno*, a physician at Venice, who some time since published a Latin translation of Dr. Jenner's and Pearson's treatises on the cow-pox, has lately edited an Italian version of the same works, which contains the text of the Latin translation, and an account of the pustulous eruptions which have been frequently observed on the legs of cows in Lombardy. It results from the description of that distemper, and the Doctor's annexed remarks, "*that the Italian cows are only once subject to that disease; that they communicate it to other cows,* but *not to children, who have not had the small pox, and that consequently the matter of Italian cows cannot be used for vaccination like that of English cows.*"

Professor *Danzel*, on the 25th of February, read a Memorial in the Royal Academy of Sciences at Berlin, on a new method, discovered by him, of steering Air Balloons.

The Emperor of Russia has appointed a committee, charged to examine into the merits of all projects of new inventions or discoveries, which shall be presented to the committee. It is composed of Mr. Korositzof, lord chamberlain and honorary member of the Russian academy, and Mr. Sachorof, professor of chemistry.

LITERATURE.

1. *A Tour through South Wales and Monmouthshire, &c. &c. by* J. T. Barber, F. S. A. 8vo. *Cadell and Davies.*

The numerous picturesque embellishments of the volume now before us are by no means thrown away on a work undeserving of such ornaments. The descriptions are accurate and discriminating, and the language in general spirited and correct. The remarks on rural scenery are occasionally enlivened by interesting anecdotes and moral reflections, which do equal credit to the head and the heart of the author.

As a specimen of the former, we shall select the affecting account of Mr. Morris's departure from Piercefield.

"Philanthropic, hospitable, and magnificent, his house was promiscuously open to the numerous visitors whom curiosity led to his improvements; but alas, by his splendid liberality, his unbounded benevolence, and by unfore-

s on contingencies, his fortune became involved; he was obliged to part with his estate, and take refuge in the West Indies. Before he left his country, he took a farewell view of Piercefield, and with manly resignation parted with that idol of his fancy. The industrious poor around, whose happiness he had promoted by his exertions and bounty, crowded towards him, and on their knees implored the interposition of providence for the preservation of their benefactor; tears and prayers were all they had to offer; nor could they be suspected of insincerity, for in lamenting their benefactor's misfortune, they but mourned their own. In this trial he saw unmoved (at least to appearance) the widows' and orphans' anguish, though he was wont to melt at the bare mention of their sorrows. His firmness did not forsake him in quitting this affecting group, as his chaise drove off towards London; but having crossed Chepstow bridge, the bells, muffled as is usual on occasions of great public calamity, rang a mournful peal. Unprepared for this mark of affection and respect, he could no longer control his feelings, and burst into tears."

We lay the following extract before our readers as a just remark on a circumstance, the frequency of which we have too much cause to regret. The author, on seeing several fine young women at Caermarthen employed as scavengers, and "a brawny fisted fellow seated behind a counter folding up ribbons and laces," adds,

"How odious is the employ of men-milliners! how shameful that men who might gain a prosperous livelihood in a thousand ways, should interfere with almost the only eligible means which the limited powers and habits of women capacitate them to adopt for a maintenance! Driven from their natural employ, they must either have recourse to a cruel drudgery which they are not formed, and are generally unable, to endure; or wander after subsistence in the paths of shame and misery, at once a disgrace, a burthen, and a terror to society. But does our censure more properly fall on these men for entering into the pretty dalliance of women's affairs, in preference to masculine pursuits requiring intellectual and bodily exertion, or on the ladies who encourage men, rather than their own sex, in the fiddle-faddle arrangement of their caps and tuckers?"

These extracts will empower the reader to judge of the style, which perhaps is rather too florid, especially in the descriptive part, where fragments of verses are frequently found, not as quotation only, but interwoven in the text.

The author seems to have been forcibly struck by the charms of the Cambrian women. The circumstantial account of the adventure on board the passage-boat, p. 20. might perhaps have been omitted without any disadvantage to the work, but we are pleased to see the indecorous history of Welsh courtship in Mr. Pratt's Gleanings, "put down," in p. 105, "by a plain tale."

The plates are well executed, and give a strong idea of the romantic scenes which they represent; and the volume, small as it is, abounds with ample stores both of information and amusement.

2. *Edinburgh Review.*

We lament to see a prevailing spirit of asperity, and uncandid ridicule, in the conduct of the *Edinburgh Review*; the names of many of the Reviewers are known to us, they have previously and deservedly received the applause of the Public for the *Mirror*; and to these gentlemen others are added of nearly equal talent. From such men the Literary World did not expect *asperity*, or *lampoons*, which latter would, Dr. Johnson well defines to be *Personal Satire; Censure, written not to reform but to vex.* And does not the following Paragraph come under this denomination? *Whoever has had the good fortune to see Dr. Parr's wig, must have observed, that while it trespasses a little on the orthodox magnitude of Perukes in the anterior parts, it scorns even Episcopal limits behind, and swells out into boundless convexity of frizz, the pride of Barbers, and the terror of the Literary World. After the manner of his Wig, the Doctor has constructed his Sermon.* (*Edinburgh Review*, N° 1. p. 18.) Good *Mr. Reviewer*, pray no more such Spital crudities. They give your Review the appearance of an inveterate attack on the Literature of the southern part of *The United Kingdom.* We have a sufficient portion of Spleen existing in our own Metropolis, without importing a Cargo quarterly from Edinburgh.—Allow us, also, to ask these Gentlemen who are so severe on others, how the following Scotticism crept into their Pages? "The language of Passion, indeed, can scarcely be deficient in elevation; and when an author is *awanting* in that particular." (*Ibid*, p. 69.) Many other similar inaccuracies might be noted.

3. *On Miss* Seward's *Opinion of Southey's Thalaba.*

The world seems completely tired of innovation, and not without reason; but every new thing is not meant in the spirit of innovation: what epicure ever complained of the introduction of a new and delicious soup? what modern officer ever ridiculed the Machiavelian mode of tactics? or who, that is alive to all the varieties of measure, laments the introduction of blank verse? Why therefore should the author of a new mode of printing verses be styled "the Jacobin of verse," "the Lucifer of the muses' heaven?" If we do not admire, we ought not to condemn matters of taste in such outrageous terms.

Miss Seward (to dissent from whom may probably be thought indicative of a bad taste,) in an Essay published in the Poetical Register for 1801, observes, and justly so, that all classes of verse are good in the hands of a genuine poet, provided his choice of them be adapted to the nature of the subject; whether he takes the blank verse, the heroic couplet, the elegiac stanza, the lyric stanza, or the legitimate sonnet.

In a poem like Thalaba, which affects to delineate the manners, ideas, and superstitions of the Arabs, it would have been absurd to have adopted the regular and measured feet of the couplet. It would not have been adequate to the expression of such wild ideas as float in Thalaba. Blank verse would have been too grand and elevated for the subject. The tender and sentimental elegiac stanza would have been tiresome in a work of such length, and the sonnet is more adapted for the expression of one particular idea, than for a romance. The lyric stanza with rhyme, appears to be a model nearer to the nature of the poem, but lyric poetry can never be pleasing in narration. In this situation what is an author to do? he must either accede to plans which he does not approve, or adopt one perhaps more dangerous, viz. forming a model himself.

In judging of such a model we ought to take into our first consideration the intention of the author, and not try the Seasons by the same rules as the Paradise Lost; neither ought the author of Thalaba to pass the ordeal of those critics who are bigotedly attached to the couplets of Pope, or the stanza of Homer. Mr. Southey was aware of the disadvantages of blank verse, but his reason for not adopting it is a just and good one, viz. that it was not suited to the subject; and in his execution of his plan, I must confess, that it seems impossible to me to read the major part of his poem with discordance.

I shall conclude with observing that harmony is the true end of versification, and that it depends not upon the jingle of the couplet, nor upon the measured feet of ten syllables to produce that harmony; and that every true lover of genuine music will prefer the artless and simple notes of original composition, however bold, to the most finished cadences of the most artificial master.

A Stranger to both Sides.

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4. *Comentari intorno all' istoria della Poesia Italiana*, &c. —*Commentaries on the History of Italian Poetry, by* J. M. Crescimbeni, *edited by* T. J. Mathias. *London*, 1803, 3 *vols.* 12*mo.*

Anxious that the field of polite literature in our native land should be as much as possible cultivated, improved, and enlarged; but aware that our own pursuits alone are far from sufficient to bring it to perfection, we are always happy in deriving assistance from the labours of other countries, and consequently are in duty obliged to those of our ingenious countrymen who occasionally favour us with translations, abridgements, or republications of foreign works of the kind; and in this persuasion also, we now acknowledge our obligations to Mr. Mathias, for having given us a splendid edition of a part of the history of Italian poetry, by the celebrated Abbé Crescimbeni, one of the most ingenious performances that ever appeared in the historical department of Italian literature,—a subject, which, although sufficiently known to us, in its prominent features and generic character, ever since the reign of Queen Elizabeth, we candidly acknowledge, has never been so thoroughly understood, as it seemed to deserve.

John Marius Crescimbeni, as it appears from his life prefixed to the present work, was born at Macerata, in the Marche of Ancona, on the 9th October, 1663. He received his literary education among the Jesuits, and afterwards practised at the bar, at Rome. But he soon devoted himself to poetical pursuits, and proved so successful in them, as to attract the admiration of all his contemporaries. He was the chief patron if not the primitive founder of the celebrated academy in that metropolis known under the name of *Arcadia*; he held, during 38 years, the dignified office of Custode of the same literary corporation; he published or edited a vast number of works in prose and in verse: and died on the 8th March, 1728, in the 65th year of his age. The most remarkable of his publications, and that indeed which has entitled him to unfading honour in the annals of his native country, is the already mentioned History of Italian Poetry. It appeared at first in 1698, in one vol. 1to. and consisted of six books: it was republished in a nearly similar, though improved shape, in 1714; and as the ingenious author, with a view of giving it the additional advantage of a didactic purpose, had from 1702 to 1711, enriched it with some appropriate commentaries, tending to illustrate the several facts, and to convert them into an indirect system of precepts and examples, both the history and the commentaries, after the author's death, were incorporated and published in 1731, in 6 vols. 4to. Mr. Mathias, in the present instance, has again detached the systematical from the historical part of Crescimbeni's work; and altering the plan adopted by the author himself, he makes the commentaries independent of the history. According to the peculiar object in his contemplation, he thinks that these commentaries exhibit *the most learned, entertaining, and complete treatise which was ever written on the subject, in any language; and that they cannot fail to give their readers an adequate knowledge of every class and description of Italian poetry.*

We agree with Mr. Mathias that his compilation, or rather his extracts, may afford a considerable degree of information and entertainment to all those who, like himself, are fond of visiting the delightful regions of Italian literature; although we do not coincide in his opinion that either his own performance, taken as it is, or even the whole original work of Crescimbeni is competent to convey a complete idea of all the poetical pursuits of the Italians. The original plan being here preserved, we accordingly find, in the first book, a detailed account of the origin of Italian poetry from Provence, and of its different kinds of metre, as well as of the nature of its rhymes, and of the vicissitudes of style which it gradually suffered; in the second, the rationale of all the manifold lyric compositions adopted from Provence, and practised from the earliest times in Italy; in the third, a similar rationale of all the farther lyric performances invented by the Italians themselves; in the fourth, the origin and system of the dramatic poetry; in the fifth, likewise the progress and actual state of epic poetry; and in the sixth, those miscellaneous works which cannot be properly classed under any of the preceding heads, and which we should not scruple to call anomalous poetry.

We do not think that all these six articles will be equally interesting and entertaining to informed readers; as some of them naturally surpass the others in curiosity of particulars and in depth of research. It is our opinion that the first book does not materially extend the knowledge we already had of its subject; as we were tolerably well informed that the poetry of modern Italy had originated from Provence; that the Sicilians were the first to adopt it in their island; that the greatest part of the variety of Italian versification was known to the Provençals; and that Petrarch had ultimately given to the mechanism of the verses that stability which, with some little exceptions, it has ever since preserved. The fifth book, relative to the epic poetry, is not remarkable for novelty of information; and the fourth, concerning the drama, would be in the same predicament, did it not contain

a curious account of the *Zingaresche* and the *carri*, of the *serenate* and the *boscherecce, rusticali, cacciatorie, marittime*, and *pescatorie* performances, all of which have been either unknown or little cultivated out of Italy. The second book, however, as well as the third and the sixth, will be read, we think, with the greatest satisfaction; and we do not entertain the least doubt that they will surprise most of their readers by the novelty of their contents. In the first book of this latter order a full account will be seen of the *distese, maggiolate, serventesi, madrigalesse*, and *eobbole*; in the second, a similar detailed notice of the *strambotti, rispetti, disperate, deche* and *corone*; and in the last an equally curious treatise on the pedantic and macheronic poetry, on verses mixed with prose, on the *anabei*, the *acrostici*, and other humorous works, of which the names were never so much as known even to men of the most extensive learning, out of Italy.

Owing to the time in which Crescimbeni lived, his work is naturally incomplete; and the present extract, as we have already insinuated, unavoidably partakes of the same defects. The whole history of Italian poetry, during the eighteenth century, is absolutely wanting in both; and in no part of either of them can any information, even incidental and indirect, be found concerning the amazing revolution which the Italian Parnassus experienced, during this period. The readers of this work will therefore still remain unacquainted with the system of the Italian opera, as projected by Zeno and matured by Metastasio; of the happy change of insipid farces into noble and philosophical comedies, by the fertile genius of Goldoni; of the didactic poetry in blank verses carried to the highest degree of perfection, by the unrivalled talents of Marchetti; of the still greater splendor which the last mentioned versification acquired, by the rich imagery of Frugoni and the polite learning of Algarotti; of the improvement generally made in the sentimental part of poetical compositions, ever since the memorable publication under the title of *Letters from Virgil to the Arcadians*, by the respectable veteran Bettinelli; and lastly, of the newly invented branch of ironical poetry, which reflected so much honour on its primitive employer, the late Abbé Parini. We understand that Mr. Mathias, constantly intent on promoting the study of Italian poetry in England, means shortly to publish a similar compilation of historical and critical remarks on the subject, from the excellent work of Tiraboschi. As this eminent writer has not carried his history of Italian literature beyond the close of the seventeenth century, and consequently labours under the same disadvantage in point of time as Crescimbeni, we earnestly desire Mr. Mathias, in case he attempts this new performance, to complete his intended building with other materials, and to take from some less common sources whatever he may think necessary to fill the above mentioned *desiderata*. And, as in the present compilation, he has thought it proper to reserve the account which Crescimbeni had respectively given of the several branches of ludicrous, pedantic, macheronic, and scurrilous poetry, which have been occasionally cultivated in Italy, we likewise think, on our part, that a regard for the historical design of the work obliges him to give some notice of those charming popular songs known under the name of *Barcarole*, and other still more curious performances which have distinguished the lively genius and the cheerful temper of the inhabitants of the once happy mistress of the Adriatic; of the sublime lyric compositions in the Sicilian language, lately brought to an admirable degree of perfection, by the celebrated Melo, justly denominated the Anacreon of Sicily; and of the truly ingenious and ludicrous poems in the Neapolitan dialect, rendered so illustrious by the unrivalled abilities of Fasano, Stigliola, and Capasso.

As a writer in the Italian language, Mr. Mathias ranks uncommonly high among those who have cultivated it out of Italy. We have found, in his preface to the work under review, such a remarkable choice of words and expressions, and such a deep knowledge of idiomatic terms, as to evince that he is completely master of the language. Nor could we give to our readers a better proof of this statement or to the author a more unequivocal mark of the attention we have bestowed on his performance, than by pointing out some little blemishes which we think we have detected in several parts of the composition. 1. The surcharged epithets *di altissimo grado de' più illustri poeti*, in the opening sentence of the preface, are too much in the inflated eastern style. 2. The triple combination of adjectives, *il più grazioso vario e compiuto*, on one side of the comma, when made to represent one complex idea, and then put altogether in contrast or rather in conjunction with the single epithet *il più dotto*, on the other side, which exhibits a comparatively simple idea, in the whole gradation breathes the affected and justly exploded diction of Boccaccio, Varchi, and their followers. 3. The phrase *nello spandere i Lumi di tanti ingegni*, page xi. v. 16, ought to have been placed at the beginning of the paragraph. 4. The particle *si*, v. 17, when put before the infinitive *adoperare*, which is a transitive verb of the highest order, and without any preceding word which can direct its meaning, evidently produces an equivocation between the conjunctive and the indefinite pronoun. 5. The word *sono*, page x. v. 6, and page xii. v. 6, is a gallicism; as, in all verbs following those which express the operations of the human understanding not implying a firm belief, the Italian idiom is characteristically in the subjunctive mood. 6. The expression *anche al cominciamento e quasi alla di lei culla*, v. 11, is a superfluous modification, implying also some tautology with the preceding, and some contradiction with the following expression. 7. And lastly, We must observe that the preposition *di* should replace *in*, p. x. v. 18, and the noun *padroni*, page xiv. v. 20, does not naturally, like *maestri*, admit the preposition *in* instead of *di*, in every case of vague affirmations. Making the due allowances for all these almost imperceptible blemishes, from which not one in a thousand among the Italians themselves is exempt, and which, if the philosophy of language could rest on authority, might be apologised by the example even of some eminent writers, we pay no compliment to Mr. Mathias in repeating, that he has reached a degree of knowledge and prac-

tive in the Italian language, as eminent as any foreign amateur ever attained. And had he lived in the happy days of the Academy of Crusca, he might have laid a claim to the fellowship of that literary corporation, full as well as Regnier, Menage, or others of his ingenious predecessors in the same line.

(To be continued.)

5. *"Le Rime di Francesco Petrarca,"* &c.—*The Poetical Works of* Francis Petrarch, *collected from the most authentic Editions, and illustrated by the Commentaries of* L. Beccadelli. 2 *vols.* 8*vo.* Verona.

This new edition of Petrarch's Poems, prepared for the press by *Morelli*, the respectable librarian of San Marco, is so infinitely superior to all former editions, that we cannot refuse ourselves the gratification of offering it to the attention of our readers.

Morelli, not satisfied with elucidating and rectifying a considerable number of obscure passages, has also added two new Sonnets, never before published. Nor has he acted a less meritorious part in annexing to this edition the very valuable and instructive notes of *Beccadelli*, which had never been printed. This learned Bolognese had an opportunity of seeing, in 1530 in Padua, at the house of his friend *Bembo*, and ten years after in Rome at the house of Bishop *Baldassare* of Pescia, several manuscripts in which he discerned the hand writing of Petrarch. He obtained leave to make copies and extracts thereof, which serve as the basis of his commentary, wherein he points out the exact time when Petrarch composed his poems, and shows with how much perseverance, attention and care, he was accustomed to revise, correct, and improve them. This edition contains also a great variety of historical and critical remarks, worthy of the attention of those who know how to appreciate the beauties of Petrarch.

NOTICES.

At the Society of Antiquaries on Thursday last, Queen Elizabeth's House-book was concluded, and Henry the Sixth's visit to the Abbot of Bury was continued. At the same time was exhibited a Cupid from Carthage with a bow in his hand in the form of a serpent.

To the Etymologies in our ninth Number, a Correspondent begs leave to add one of the common phrase—He *smoked* me; which evidently came from the French *se moquer, to mock.*

The Rev. Mr. Falconer of Corpus Christi College, Oxford, has issued proposals for publishing by subscription a translation from the Greek text of the *Geography of Strabo:* to be illustrated by maps, coins, inscriptions, &c. The book will be printed in three volumes 4to, and, it is expected, will not exceed four guineas.

We hear that a Bookseller has offered Mr. Fox ten thousand guineas for his History of England, to consist of two quarto volumes. The great abilities of Mr. Fox, and the opportunities he enjoyed whilst at Paris to consult Original Papers make us extremely anxious respecting this publication.

Mr. T. Payne's visit to the Continent, during the summer, had made the literary world anxious for the appearance of his Catalogue, which was published last week. It contains a very rich assemblage of fine books, and some very curious manuscripts. We select the following Persian and other MSS:

1. Dewan Shemz ul Deen, a Tubrizi.—Poems on different subjects, by Shemz ul Deen, a native of Tubriz in Persia, formerly Ecbatana, upon variously coloured Indian paper in Persian binding.

2. The Wonders of the Creation, with a great number of curious paintings.

3. The Poem of Joseph and Zulegka (Potiphar's Wife), the first page beautifully illuminated.

4. A splendid Koran, embellished with gold ornaments, in curious Persian binding.

5. The Koran, written on paper of gold, and splendidly illuminated throughout in Persian binding.

6. The Epistles of Cicero to Brutus, and Brutus to Cicero, by Middleton, with a considerable number of marginal notes by Markland.

A valuable Collection of Duplicates belonging to a first rate scholar, and translator, who is about to leave this country, commenced on Thursday last at *Leigh* and *Sotheby's*, and will conclude to-morrow. The books were in high preservation, and had amongst them many editiones Principes. The Sale on *Saturday* was attended by the *Marquis of Blandford, Lord Spencer, Mr. Porson, Mr. Hever, Dr. Gosset*, and many other Literary Characters. The *Demetrius Pepagomenus de Podagra, Gr. et Lat.* Par. ap. G. Morel 1558, was bought by Dr. Burney for £0 2s. 6d. The *Comnena Alexiados, Cruce, Aug. Vind. ins. Pinus.* 1610, went for £2 5s. 0d.—*Fracastori Siphilis Edit. Princeps*, Veron. 1530, bound with other Tracts, was bought at 8s.—*Gascoigne's Poesies*, wanting one leaf, 1575, went for 18 shillings.—*Dives and Pauper*, was bought by Dr. Gosset for £3 11s. The Sale on *Monday* was rather more fully attended. The Pieces of Hearne's Works were the favourites, and fetched enormous prices. His *Antiquities between Woodson* and *Oxford*, large Paper, *Lond.* 1725, went for £5 1os. 6d.—The *Beverlacensis Annales, Chart. Max. Coin Turcice, Oxon*, 1716, went for £10 10s.—The *Glastoniensis Chronica, Chart. Max.* 2 Tom. Oxon, 1726, £7 9s. 6d.—*Roperi Vita Mori cum effigie, Chart. Max.* 1716, £7 17s. 6d. Mr. Payne of the Mews Gate, and Mr. Evans of Pall Mall, were the principal buyers.—The *Kempis Imitatio Christi cum Turcico, ac Jobis decantatis*, Lugd. Bat. apud Elz. 1658, bought at £1 8s.

The Sale on Tuesday was well attended, with the addition of Dr. Raine, who made some purchases. The different pieces of *Meursius* went higher than usual. The Marquis of Blandford bought an early Edition of *Martial*, for £5 10s.—*The Mirror of the World*, with cuts, a perfect copy, printed by Caxton, *Dr. Farmer's* Copy, went for Thirty Seven Guineas, and was bought we believe for the Marquis of Blandford.

The sale of *Mr. Gyll's* Books, commences at Leigh and Sotheby's on Tuesday next.

We are sorry to announce the death of Mr. Flaxman, of the Strand, father of the Academician.

Cambridge.—The two Tutors of Trinity College are *Jones* and *Tavel*. Of St. John's, which has always been divided into two sets of Tutors, *Catton, Smith*, and *Wood*, occupy we believe, one side. The admittances at *Trinity* and *St. John's* are from 50 to 70 of a year. At Trinity the young men who were entered last year, are this Term lectured in the *Menexenus* of *Plato*; *Œdipus Tyrannus* with *Porson's Preface to Hecuba*; and *Cicero de Officiis*. A Mr. Parke of *Trinity College* has gained great credit as 5th Wrangler and first Medallist; the second Medallist was second Wrangler, *Mr. Hoare* of *St. John's*.

The Atlas of Germany which Marshal Turenne possessed, now forms a part of the valuable library of General Miranda.

The fate of the celebrated Statue of *Jupiter Olympus* by Phidias, has been thus ascertained by a learned Corr-

pondent: It was moved by *Theodosius* to Constantinople, where it was consumed in a fire, together with the statue of Juno of Samos, and that of Minerva of Athens.

Mr. Pocock has prepared for the Exhibition, among other pictures, 1. The gallant attack made on the Guillaume Tell, by the Hon. Capt. Blackwood, in his Majesty's frigate Penelope, during the night of her escape from Malta: by which he so much disabled her, as to enable the *Lion* and *Foudroyant* to come up at sun-rise on the following morning. 2. His engagement by moonlight in the Bulliant, 28 guns, off Teneriffe, with two French 44 gun frigates, which he disabled and beat off.

The late ill health of Sir William Beechy will probably prevent him from exhibiting many pictures. It is however probable that he will favour the public with his Portraits of *Lord Romney*, *Princess Sophia of Gloucester*, and *Sir William Staines*, the late worthy and sterling Lord Mayor. This artist is at present employed on a Portrait of Earl Fgremont.

A novel called *Algernon*, will soon be published by the authors of The Tales of Terror.

Mr. Peter Bayley, jun. has in the press an octavo volume of Miscellaneous Poems, principally relative to the Arts.

Miller's beautiful edition of the *Costume of Russia*, will be completed next month.

Tassie. This ingenious and modest artist shall frequently receive our attention. We particularly recommend to our readers the following articles which he has lately executed.

1. A Cameo of *Jupiter Ægiochus* given by the senator *Juliani* to the library of St. Marco: stolen thence by the French, and now placed in the Musée Nationale at Paris, 1799.

2. An Intaglio of *Minerva* from a paste of Sir W. Hamilton. The original gem was worn by *Augustus*, as a sort of clasp to his robe, and is valued at £1200.

3. A white enamel of the Pretender, from a medal formerly in his possession.

Mr. *Tassie* has taken sulphurs of above 400 of Dr. *Hunter's* valuable Medals, including all the Greek Cities, and Kings. It is his intention to select the most curious of Dr. Hunter's collection, which with the modern medals amounts to near 50,000.

Mr. Todd, the last ingenious editor of Milton, has lately received from several places abroad, and particularly from Italy, some curious and interesting particulars relative to the life of that great poet. He has also obtained a copy of the Defensio Regis of Salmasius, with remarks on several passages of false Latinity in Milton's own hand-writing, which it is hoped he will give the public, in a new Life of Milton, after he has completed his edition of Spencer.

It is Capt. Burney of the Royal Navy, and not Dr. Burney, as was mentioned in No. 11, p. 347, who has a work in the press relative to Discoveries in the Pacific.

Professor Mallet at Geneva has just published a very interesting work, intitled, "*Histoire des Suisses ou Helvetiens*," &c. in which the history of Switzerland is brought down from the remotest times to the middle of last year, when the first Consul of France began "*to mediate with effect*," for the *permanent welfare* of the Helvetian Republic. We shall take the earliest opportunity of laying before our readers a minute account of this valuable composition, whose author in a manly and animated tone exposes the infamous measures, by which the ancient independence and prosperity of Switzerland have been annihilated.

There was published at *Madrid*, in 1784, an improvement of Raynall's History, under the following title: *Historia Politica de los Establecimientos Ultramarinos de las Naciones Europeas, por Eduardo Mala de Lugue.* 3 *tomes* 8*vo.*

In an Italian work, On the origin, downfal, and restoration of the City of Ravenna, lately published by *Diisderio Spreti*, we find the following extraordinary epitaph:—

RAVENNAE.

F. F. Dicat

Cineres et ossa Laodiceæ Philocaptæ
Hic sita sunt, perpetuæ memoriæ facti
Et infamiæ causa, quæ insatiabili Venere
Exhausta subter vivo viro mortua est.
Vix. ann. xxiii. Men. viii. D. iii.
Infelicissimi parentes, tacito nomine,
Extra Sortem ad Rudera posuere.
O Voraginem curientem!

The Tuscan government has re-established the "*Academia del Cimento*," which flourished under the reign of the Medicis, and which the late Emperor Leopold intended to restore. The first sitting was held the 16th March of last year, and *Peter Ferroni*, professor of mathematics, appointed secretary.

We learn by a letter from Moscow, that the University of that place is not so much frequented at present as it formerly was; the number of students does not exceed one hundred and fifty. The public lectures are all delivered either in the Russian or Latin tongue; the number of professors is considerable, but, with a few exceptions, they do not seem to display much zeal to promote the interests of literature. Their salary, which was fixed at 500 rubles per annum, has been lately increased by the present Emperor.

The Russian Academy, established for the purpose of perfecting the Russian language, has lately published a complete grammar of that tongue, the author whereof, Mr. Sokolof, has been presented by his Imperial Majesty with a diamond ring, as a proof of his satisfaction.

In 1797, the late Emperor Paul I. founded at Moscow an Academy for the education of young noblemen, with a fund of eleven thousand rubles, which has lately been encreased by the present Emperor by twelve thousand rubles. The Attorney-General is the President of that institution, which has besides a director and six professors.

The celebrated sculptor, *Anthony Canova* has completed his beautiful statue of Perseus." It is 10½ palms high, and represents Perseus at the moment when he has struck off the head of Gorgona. This head he holds in one hand, and in the other the sword given him by Vulcan.

Mr. Sartori, librarian to the Theresian Academy at Vienna, and successor of the celebrated *Denis*, has edited a descriptive catalogue of the works found in the library of the said institution. The scarcest work of that collection is described under N°. 144, and entitled, "*Summa quæ vocatur Catholicon, edita ab Johanne de Ianua.*" It is written in 1286, printed before the year 1460, and described by the learned bibliographer as follows:—"*Characters semigothico, charta Pustinea, sine signo, cust. epigr. folus* 300 *non sign; col.* 2, *lin.* 67. *fol.* [illegible]."

Our readers will probably recollect, that *Mozart's* celebrated *Requiem* was found unfinished at the time of his decease, and completed by his friend *Sussmayer*, director of the Imperial orchestra at Vienna. We learn from a letter written by Mr. Süssmayer to Messrs. Breitkopf and Haertel at Leipsic, that the *Requiem æternam*, *Kyrie*, *Domine Jesu Christe*, and *Dies irae*, as far as the verse "*qua resurget ex favilla*," are composed by Mozart, and the rest by him.

MANNERS.

FROM the Subject of *Routs*, and *Tray Suppers*, our readers may turn with little difficulty, to some observations on those *Gentlemen* who form a very conspicuous figure in great Houses; and by way of eminence are there called, *the Duke's gentleman*, or *my Lord's gentleman:* a class of Animals known originally by the term of *Servants out of livery*.

For what reason, or on what occasion, they were dubbed *Gentlemen*, we are utterly unable to ascertain; unless, having dropped the term *Usher*, they consider themselves as the *Gentlemen ushers* of great houses, and deduce the justice of their title from the following lines in Shakspeare:

"Let be called before us
That *Gentleman* of Buckingham's in person."

Be this as it may, it will be sufficient to refer our readers to the excellent chapter on *the Title of Gentleman* in Selden's Titles of Honour (page 705) in order to prove, with how little reason it can be assigned to a domestic: *the Title of Gentleman*, says that learned Antiquary, *denotes one that either from the blood of his Ancestors, or the favour of his Soveraign, or of them that have power of soveraignty in them, or from his own virtue, employment, or otherwise, according to the laws and customs of Honour in the country we speak of, is ennobled, made gentile, or so raised to an eminency above the multitude, perpetually inherent in his person, that by those laws and customs he be truly* NOBILIS, *or Noble, whether he have any of the precedent titles, or not, fixt besides on him.* Whether a Domestic, therefore, is in Livery or out of Livery, he cannot any how be termed a *Gentleman;* and indeed, of the two, the Servant in Livery is in reality the person of the greatest Consequence: since otherwise, the Uniforms of the Navy and Army, (which are in fact the Liveries of the Monarch, or Master, whom our Seamen and Soldiers serve,) are badges of disgrace, and ought to be done away for Plain Clothes.

A *Servant out of Livery*, is therefore a Servant who is ashamed, or too conceited to wear the honourable badge of Service; the removal of which was the first step towards that Levelling System we all have so much reason to abhor. It gradually and privately prepared a very powerful body of men to forward and abet the machinations of the philosophers of the *Encyclopedie*. Spies were thus planted in the houses of the Great; whose very station, and opinions tended to *equalize rank:* for without any employment that deserved the name of Service, they lost all principle of attachment. Indolence soon nurtured discontent; an increase of Wages brought only an increase of pride; the irritation of a vacant mind produced discontent; and in this state they sought the Evening Club that was prepared to receive its victim. Here these *Gentlemen* were taught by chosen emissaries to assert the rights of man; to discuss subjects they could not possibly understand; to ape the character of their Superiors; to support, and relieve those who had been dismissed for Dishonesty, or Impudence; to strengthen a Cabal by which Servants should be able to dictate to their Masters; and above all to relate, with no trifling Additions, whatever the *indiscretion of different Guests had uttered at the dinner table.

If such conduct towards Servants was formerly considered as indiscreet, what must it be in the present day? The *Gentleman out of livery* repeats what he has heard to either my lady's maid, if she is pretty, or else discusses it with his *Peers* at the *Second Table*, and afterwards at the Evening Club. It was in consequence of this evil, that the late Duke of Orleans had a dining-room so constructed at his celebrated villa of *Monceaux*, that the attendance of these gentlemen might be entirely dispensed with; and something of the same nature has lately been introduced at home into the private parties of the great, by means of dumb Waiters.

We all remember the time, when the Servants' Hall of a nobleman, or a man of fortune, was truly an hospitable Board, and afforded a sight worthy of interesting, and improving the guests of the master. The *Housekeeper* presided in sober dignity at the upper end of the table, and the *Butler* at the lower; and the other servants sat down according to their *rank*. One of the last persons who preserved this truly Patriarchal custom, was the late worthy *Sir Roger Mostyn*, Bart. at his seats in Wales.—But what have we now? These Gentlemen of Service, these *Knights of the impudent countenance*, have such a disgust for the livery of their profession, that they have long migrated to a *Second Table*; and to such an height has this folly been carried, that the *Gentlemen* of an India gentleman in Sussex, who were allowed a Servant to wait on them, actually requested their master, that the said Servant might attend the *Second Table* in a livery of their own chusing; a request which their master, with all his vanity, fortunately thought proper to refuse.

We sometimes, when the Printer's Devils will allow us, occasionally enjoy the honour of mingling in the circles of the Great; but being naturally absent, or engaged in contemplating the Picture of Manners before us, we have often been led into sad mistakes with these *Gentlemen* of *Gentlemen*. They are generally better dressed than either the master of the house, or many of his guests; we have therefore often been detected in declining to take a chair above them at table; and once indeed, in our zeal for the present Work, having presented a Number of the *Literary Journal* to the Servant, instead of the Master, the former was so obliging as to add, *he would recommend it that evening at his Club.*

These *Gentlemen* of *service*, and their *Second Tables*, occasion horrid confusion at the houses of persons of moderate fortune. Our good Housewives are thus sadly distressed; and the arrival of a Lord, or man of fortune, in a family, where a small establishment is necessary, becomes a serious evil, and throws the

* "What, says Jeremiah Collier, do Masters think of, who talk so freely of their Affairs before Servants? Can they depend upon the discretion of those Servile Souls formed of Mud? They can seldom forbear telling all they have heard, and 'tis by this rascality the most important Secrets of the Masters are revealed. Servants have a wonderful Curiosity to know all, and as great an itch to tell it again; it seems as if they meant to compensate themselves hereby, for the pains and misery of their Servitude. Vexation, Interest, and Folly makes them speak, and sometimes their Malice and Ill-nature." (*Reflections upon Ridicule*, vol. 1. p. 40.)

whole into a fever.—*What shall I do with my Lord's Gentleman?* is echoed throughout the house, which thus is thrown into confusion by his presence; whilst the whole domestic economy is convulsed on his taking leave, by the poison such airs have disseminated.

Much remains to be added to our Subject; but we shall conclude for the present, with relating a simple Fact, upon which our readers may ruminate at their leisure

The Country House of a certain Prelate was some years since honoured by the arrival of a *Nobleman*, and his *Gentleman* The establishment of the Bishop was respectable, but yet simple, and consistent with his character. The Nobleman was ushered into the drawing room, and every thing had gone on as usual; until, just before the dinner hour, the worthy Prelate was called out by a domestic, who informed him that the whole family was in confusion, *for my Lord's Gentleman had declared with repeated oaths, he could not eat with Servants in Livery.* The Bishop requested to see him; and he accordingly descended from the garret, where he had taken shelter, to the hall.—*I am very sorry, sir, that my household is arranged in such a manner, as to make it impossible for you to take some refreshment; you have come a considerable distance today, and must be fatigued. I really, Sir, hardly know how to act in this difficulty; but this I can do: my wife, I am certain, has no objection to your dining with us, if your Master has not. I will, therefore, added the good Bishop, go and consult him first, and inform you of the result.* The poor *Gentleman* was all in a tremor; his conceit instantly disappeared; he humbly requested the Bishop not to speak to his master: and at length, though with rather a wry face, and some contortions of body, he condescended to sit down with the other domestics. What the consequences were to his professional character, we have never heard: but we humanely conceal his name, lest it should reach the Club, and thus produce his degradation among his brother *Gentlemen.* SQUI.

NOTICES.

And what will the future historian say of the Duke of Q———?—The poor emaciated man was seen on Friday the 25th of March, just emerged from the bed of death, poring through the lattice in his night-cap, watching the fleeting shadows of the Fair:

He sigh'd, and look'd,
Sigh'd and look'd,
Sigh'd and wish'd; and sigh'd again.

Whenever Fashion can be brought to assist the Arts, in however small a degree, we hail its influence with joy: and therefore particularly admire the present mode of wearing as Lockets, or Ear-rings, what are termed *Appliquées.* They consist of small impressions on white enamel, by Tassie, placed on cornelian, so as to represent real Cameos. For the same reason we commend the beautiful Pendant Ornaments that are made from the *Satin spar.*

The Flannel Pelices of various colours, which have so long been the dread of linen-drapers, from their allowing ladies to wear underneath whatever they please, will hardly survive another such week of warm weather as the last.

The Golden Pen which in the higher circles has been much in vogue as a broche, was originally, we believe, made by *Gilbert,* from a design of the Princess Elizabeth.

Lady Nelson, was on Thursday last introduced to their Majesties, as Duchess of Bronti; and, as we understand, at their particular request. Nothing can surpass the exemplary conduct of this Excellent Woman.

On Saturday night, a Female Infant, was left carefully wrapped up at the *Countess de Bruhl's* door, in Old Burlington-street, with a note pinned to its Breast, stating that her name was *Caroline.*

POLITICS.

WE flatter ourselves that we have now stated reasons sufficient to convince our readers, that with regard to the produce of her soil, and of her foreign commerce the last war left France in a very exhausted situation; and that in so far as these are means of strength, she is not a strong, but a weak country; not a more powerful country than Great Britain, but a less powerful. We now produce the facts descriptive of the situation of her manufactures and internal commerce. The statements which we present refer to the beginning of the year 10, about a year ago; and we shall take notice afterwards of the changes which have been made since.

In Lyons in 1788 there were 14,777 looms employed in the silk manufactory, which gave work to 58,500 people. At present there are only about 7,000 looms employed. In 1780 thirty houses were employed in the lace trade, the produce of which was estimated at £416,666 sterling. It is reckoned scarcely a fifth part of that at present. Embroidery, in which 6,000 persons were employed at the revolution, has now only 600. The hat manufactory gave work to 8,000; it gives work at present only to 1,500. The produce of the tannery amounted to about £400,000, at present it is no more than £6,000. The cotton manufacture of the mountains of Baujolois produced in cloth and thread upwards of £400,000; this is reduced one third. The manufacture of Tarare has suffered still more; it employed, in 1789, six hundred looms, which produced ten thousand pieces of muslin a year; there are now only 300 looms at work.

If it be alledged that Lyons suffered in an extraordinary degree by the revolution, we can produce instances in other quarters sufficiently numerous to prove that the case was nearly as bad in every part of France.

In the department of the Loire, before the revolution, hemp and cotton manufactures were carried on to the extent of between £4 and 500,000. These manufactures employed at least 60,000 individuals. They are now reduced to less than a half of their former produce, and are declining every day. They employ at present no more than 25,000 individuals; and their wages are sunk a full third.

The manufactures of Rheims consisted of various sorts of woollen cloths; the greater part of which were exported to Spain and the Levant. The number of pieces manufactured in 1787 was 94,615. It amounts at present only to 13 or 14,000.

At Troyes, dimities, fustians, velvets, muslinetts, and various sorts of cotton cloths were manufactured. In 1784 three thousand two hundred and forty looms were employed, at present only 1,466 are so, and the business is understood to be diminished more

than two thirds. The hosiery, and broad-cloth manufactures too are diminished, but not in so extraordinary a proportion.

The manufacture of Saint-Quentain was lawns and cambrics. It employed in 1789 in town and country together, from 12 to 14,000 looms. The weavers earned from 20 to 25 sous a day, and the women necessary in the business 10 sous. The looms are now reduced to between 2,500 and 3,000; the women earn scarcely 3 or 4 sous a day, and the weavers are reduced to beggary.

The manufacture of Vervins has experienced the same reduction. There is not an eighth part of the looms employed in that district, which were so before the revolution. And its hosiery business is reduced two thirds.

The celebrated manufactures of Brittany, so considerable a part formerly of the export trade of France, are diminished more than two thirds, and are declining every day. The cloths of Ireland, and Silesia have got admittance into the Spanish colonies, and are preferred to the French, by which these colonies were formerly altogether supplied.

The manufactures of broad cloth at Louviers, Abbeville, Amiens, Veroiers, and Elbœuf have supported themselves better; but those of Carcassonne, Castres, Mazamet, Montauban, and the others in the southern provinces, have failed materially. And the English cloths, which are now known in the Levant, and cheaper than the French, threaten to exclude the latter entirely from that market.

The business of Rouen, the manufactures and commerce of which were among the largest in France is diminished more than a half since the revolution.

The cutlery-works carried on at Langres and Chatelherault are completely ruined; and the inhabitants of the latter city are reduced to the last stage of wretchedness.

The manufactures of Marseilles were almost annihilated by the emigration of 1793. The manufacturers, who left France at that period carried into Italy their industry, and their capitals, and have established there, for one article, more than 150 manufactures of soap, which not only diminishes the sale of that of Marseilles, but prevents the oils of Italy from being carried there to be manufactured.

Nimes and Ganges were formerly celebrated for the manufactures of the finest silk stockings in Europe. Those manufactured at Paris were reckoned to have the best made feet; but the fabric was not equal either in durability or beauty. The sale of this commodity was very great before the revolution; but since that period the prefect of the department complains that Great Britain has accustomed Europe to prefer her superb cotton stockings; and the business of Nimes and Ganges has diminished more than a half.

Three manufactures of starch, which were carried on at Nerac and Lavardac, no longer deserve even to be mentioned. A glass manufactory established in the same district has been shut up since the revolution, and the nine paper manufactories reckoned in the district of Villeneuve are reduced to two.

The manufactures of Mende, Marjivols, St. Chely, Canourgue, &c. produced formerly a great quantity of serge, and other woollen and cotton stuffs. The produce of these manufactures was valued, before the revolution at 5 millions of French money; at present it is valued at only three. The distilleries are the only manufactures of the southern provinces which have survived the storms of the revolution; and it is concluded that through the whole of France the manufacture of spirits employs a greater number of hands than before.

The different manufactures carried on in Paris and in its neighbourhood are almost the only ones that support themselves with any degree of success, although the price of subsistence, and the wages of labour are there much greater than any where else. But it is there that some slight accumulation of capital exists.

A memoir of citizen J. Bose, a member of the Tribunate, on the means of improving agriculture, commerce, and the arts in France, informs us that the produce of the arts and manufactures in that country for the year 1789, deducting the price of the crude materials, might be stated as follows:—

	Francs.
Linen manufacture	161,250,000
Woollen	92,500,000
Silk	41,000,000
Modes	5,000,000
Household furniture, tapestry	800,000
Mercery, and iron ware	75,000,000
Tannery	6,000,000
Paper	7,200,000
Goldsmiths and Jewellery ware	2,500,000
Manufactures, called in France (manufactures by fire)	88,000,000
Soap	5,000,000
Refining of Sugar	4,800,000
Salt	2,700,000
Snuff, etc.	1,200,000
Starch	1,200,000
Fisheries	20,000,000
Arts and professions	60,000,000
Total	524,750,000

"This circulation," remarks citizen Bose, "is at present reduced by the languor of consumption, and the low state of activity and industry, to less than 250 millions; and we cannot estimate the mass of circulating capital at present in France at more than 1,200,000,000."

This sum is equal to £50,000,000 ster. Now, in comparison with this, let us consider that the exported part alone of British industry and commerce amounted in 1801, according to the accounts presented to the house of commons, to £41,577,213, 3s. 11d.

Such is a specimen of the results which a review of the internal trade of France presents. We are persuaded, that the facts selected refer to a sufficient variety of the different species of French industry, and to such a variety of places in all the different quarters of France, as to appear to our readers a very satisfactory specimen of the business of that whole country. We think too, that they will not hesitate to draw as a conclusion, that so far as the produce of domestic trade is a source of power, France is not very formidable to her neighbours, has not augmented

her strength by her change of government, and her successful wars; rather that it would not be unfit for her to adopt the sentiment of a conquest-loving king, who, on the termination of a successful battle, in which he had suffered much, replied to those about him, and who were congratulating him on his success, "Such another victory, and we are ruined!"

These facts are most abundantly confirmed by more general considerations. It is well known that the interest of money is a pretty good test of the quantity of capital in any country. The price of the use of money, like the wages of labour, and the price of every thing, is regulated by the quantity brought to market, compared with the number of those who want to find it. When capital is plentiful, there are more who wish to lend, than there are who want to borrow, and the interest of money sinks. When capital is deficient, there are more who want to borrow, than there are in a condition to lend; those, accordingly, who have any thing to lend, get more for it.

At the conclusion of the war, the interest of money was not below 15 per cent. in France. Part of this exorbitant interest was no doubt a sort of premium of insurance on account of the extraordinary risk, which the unsettled state of affairs created with regard to all trusts of money into the hands of others, and accordingly the interest of money has somewhat decreased with the increase of order and security in the state. But even now, under all the boasted order, popularity, and strength of the present government, it borrows at an interest which floats between eight and ten per cent.; and individuals borrow at an interest still higher, from 10 to 12 per cent. We shall transcribe a passage in confirmation of these facts from *Considerations sur l'organisation sociale*, a work which we have quoted several times already, published in France, at the end of the last year.

"It is with grief we remark that in Brussels, Liege, and Strasburgh," (by far the richest places in France) "where the interest of money was formerly 4 per cent, it has risen to 10 and 12, since 1790. This rise of the interest of money, and the *impoverishment* of all classes of society in France, are the chief cause of the destruction of our manufactures. As long as these causes shall subsist, it will be impossible to revive our industry; we may expect, on the contrary, that its decline will become every day more remarkable. The war made us lose, it is true, a great part of our foreign trade; but the stroke which has proved most fatal to our manufactures, is the daily diminution of our domestic consumption."

In Great Britain, at this moment, according to the price of the public stocks, the government borrows at 4 per cent. or between that and $4\frac{1}{2}$; the country bankers at 4 per cent.; and all persons of credit at 5, and less than 5. Even during the war, when the immense size of the government credits necessarily raised the price of the money which could be afforded to that use, bankers and individuals could borrow at nearly the old terms.

By these accounts it appears that the interest of money in France is more than double what it is in England. Now it is to be observed that a diminution in the interest of money implies more than a similar proportion in the increase of capital. A diminution of interest in any country from 6 to 3 per cent. for example, implies that the capital of that country had not been doubled merely, but tripled, or perhaps quadrupled. It is to be observed, too, that any rise in the interest of money, when that interest is already very high, implies a much greater diminution of capital than an equal rise when that interest is low. Suppose that to raise the interest of money from 3 to 6 per cent. requires only that the capital of a country should be reduced one half; to raise that interest from 6 to 12 per cent. it would not be sufficient to diminish the capital another half, it must be diminished in a much greater proportion, probably a double proportion; it must be reduced not to a half only of what it was before, but to a fourth, and perhaps less. The capital of England is probably ten times greater now, when the interest of money is at 4 per cent. than in the days of Henry VIII, when it was at 10 per cent. The conclusion therefore is unavoidable, that after making full allowance for all additional causes of the high rate of interest in France, there must be an enormous disproportion in the aggregate capital of that country and of this.

Such proofs are satisfactory to us with regard to the poverty in which the war left France, and the exhausted state of her means both to maintain industry, and to wage war. She has, however, just now published a very pompous statement of her finances, from which she draws the most flattering conclusions, and by which she desires to intimate to foreign nations her riches. That statement does her honour. It is the first appeal which has been made on the continent of Europe to the judgment of the people respecting the use made of the money drawn from them to the support of their governors. This is an event of magnitude; in which the continental neighbours of France are deeply interested; in which they would do well to follow her example; in which they must soon follow her example, if she persevere in the same laudable course. It is a proof of the good intentions of the government of France, of her purpose to administer well the effects of the people committed to her discretion; and it proves that much care, and no little skill, has been employed to reduce to order the most complete chaos that can well be conceived, the finances of France at the end of the late war.

The result of this statement is no doubt highly satisfactory to the government of France; that whereas in former years the revenue of the state was insufficient for its expence, in the last it has been more than sufficient, and has left a surplus to be carried to the supplies of the following year. But we think we can prove, without going into any very intricate details, that this is by no means such a proof of the prosperity of the country as the French government wish to represent it. It is to be observed that the revenue of France arises from taxes altogether different from those of Great Britain; and though an increase in the produce of the taxes of Great Britain be a most decisive proof of an increase in the business and riches of Great Britain, the case is not the same in France. In Great Britain by far the greatest portion of the revenue arises from the taxes on the purchase of goods, and commodities exported and imported. An

increase of the revenue therefore is a proof of the multiplication of purchases, and the increase of exportation and importation. About two thirds of the revenue of France arises from what they call direct contributions; these are, a tax on land and houses, a sort of poll tax, and a tax on doors and windows. These taxes are levied not according to any fixed rate, but according to an arbitrary valuation each year. Any difference in their produce therefore in one year and in another, is no proof of a greater ability in the contributors to pay, but of a greater rigidity in the exactors to procure payment.

But, what is more to the point, we say that the produce of the taxes which existed in the year 9 is greater than the produce of the same taxes in the year 10, the year to which these magnificent statements refer. In the year 9 the net produce of all the taxes, both direct and indirect

	Francs.
Amounted to	475,477,041
In the year 10 the net produce of all the taxes amounted to	503,521,623
Difference	28,043,582

being somewhat more than one million sterling, not a matter greatly to boast of, between a year of war, when their trade was annihilated, and a year of peace, when they might have as much trade as they were in a condition to carry on. But besides, in this produce of the year 10 is included the produce of a new direct tax of 21 centimes upon all the old valuation. The produce of this new tax was 57,417,000f.; that is more than double the excess of the whole produce of the year 10 above that of the year 9. So far therefore is there from being any additional produce in the taxes of France, from which to draw a conclusion of her prosperity, that there is an actual deficiency of 29,373,418 franks.

Even this deficiency too is greater in reality than in appearance. In the year 9 only 8,473,211 francs were raised by the lottery; in the year 10, on the other hand, 10,000,000 were raised by the lottery. This acquisition, it is evident, has nothing to do with the national prosperity. Another point of considerable importance is, that the government being now freed from the embarrassment of war, has been able by superior vigilance to prevent a great part of the enormous frauds committed by the collectors and receivers of the revenue; and this has contributed in a very great degree to augment the receipts of the treasury. To this even the minister of finance himself ascribes the greater part of the difference between the state of the finances at present and in the year 8. "That difference," says he," is owing, in the first instance, to the return of peace; the MANAGEMENT has done the rest. Several causes," he continues, "had contributed to the ruin of our finances? 1st, delay in the assessment, and partition of the direct contributions, the chief branch of the public revenue; negligence in making up the lists, and, by necessary consequence, extreme remissness in the levying. which, on the other hand, the receivers had no interest to accelerate; whence resulted, in reality, an annual and permanent deficit of more than 200 millions: 2d, admission into the public coffers of a great quantity of fictitious representatives of property, created by the necessities of the state, which it had uttered in payment at a great loss, and which it was obliged again to receive in discharge of direct contributions and taxes: 3d, the anticipation of the taxes for different services: 4th, the employment of forcible requisitions in all parts of the republic, for which articles applicable to the payment of their contributions were given to those who had contributed provisions; which permitted no accounts to be kept, and favoured all manner of abuse: 5th, discouragement in the latter years of all classes in the society, by the establishment of a progressive impost, under the title of a forced loan, which at once devoured both the resources of the present, and the hopes of the future."

Large savings have been made, by the establishment of order, in the expence of collecting the revenue. Costaz, a Member of the Tribunat, has made the following comparison between the expence of collecting the indirect taxes in the years 9 and 10.

Rate per cent. on the gross produce of the expence of collection in	Year 9 fr. c.	Year 10 fr. c.
Office of registration	15 22	13 39
of the customs	80 72	24 78
of the lottery	30 19	37 38
of the posts	52 60	16 44
of the salt-duties	59 20	54 69

Our readers will probably remark, in this table, a fact, which can hardly fail to strike them, that in one of these taxes the expence of levying is more than one half of the whole; in a second it is very near one half; in another it is considerably more than one third; in another it is one fourth; and there is only one in which it bears any thing like a reasonable proportion.

Having before stated facts which we conceived to be sufficient to prove the extreme state of weakness in which France was left at the end of the war, we think that we have now produced observations which shew that the improved state of the treasury is by no means the consequence of improvement in the condition and industry of the people. It is chiefly the consequence of new taxes; of a more rigid exaction; and in some measure too of a reform in the administration. We do not deny that ameliorations in the country have taken place during a year of peace; but we know that they are too much in their infancy to produce very visible effects.

We cannot forbear calling to the attention of our countrymen one fact: In the expences of the year 10 there is stated no less than 2,253,000 francs as the charge of the prosecution of the subjects by government for the payment of the direct contributions.

We shall only remark farther at present the comparative state of the war and peace establishment of France. In the year 9 the expence of the state was 526,477,041 francs. In the year 10, the first year of the peace, a saving was made of nearly 26½ millions, chiefly in the war, and navy department. For this year 11, a credit is demanded much greater than the expence of the year 9, no less than 589,500,000 francs. In the year 9 the expence of the war department was 238 millions; a credit is demanded for it in the year 11 of 243 millions. In the year 9 the

expence of the navy was 91 millions; in the year 11 a credit of 126 millions is demanded for it.

We have no doubt that this enormous establishment will be represented by some as an object of alarm to the neighbouring states; we consider it as most formidable, by far, to France herself.

To the EDITOR of the LITERARY JOURNAL.

Mr. Editor,

I beg leave to state to you the following errors of the Biographer of Lord Redesdale in your last Number, having been well acquainted with his Lordship all my life.

Lord Redesdale was not born at Mitford Castle; his father was of a younger branch of that family, and was settled at Exbury in the New Forest, Hants, now in the possession of his elder brother, Col. Mitford; and so far from being educated in the north of England, John Mitford never was in the north of England till he was grown up. He was educated at Cheam School in Surrey, under the Rev. Mr. Gilpin, who indeed deserves all the eulogium bestowed by your Correspondent on his northern Preceptor, and from Mr. Gilpin he derived that taste for landscape drawing which he has noticed. Y.

NOTICES.

Austria.—We account it a matter of no little importance which we are going to announce, that the Emperor of Germany has resolved to enlarge and repair the harbour of Trieste for the benefit of commerce. What noble sources of prosperity to the dominions of that monarch do the shores of the Adriatic hold forth, if he shall know how to make use of them!

Rome.—According to the historical and statistical Almanack, yearly published in the Ecclesiastical State, the present population of Rome amounts in the whole to 153,004 souls; the number of families is 37,738, of males 80,580, and of females 72,424. There are 1586 priests, 1337 monks, 1330 nuns, 26 mussulmen, and other like sectaries, and from 15 to 18,000 Jews. In the year commencing Passover 1801, and ending Passover 1802, the number of births amounted to 5193, and that of deaths to 8457.

In the last years which preceded the revolution of 1797, the amount total of the population of Rome was 166,280 souls; in 1798 it amounted to 151,657, in 1799 to 147,026, and in 1800 to 153,004. The difference between the years 1797 and 1799 amounts to 19,234 persons driven from Rome by the revolution. It appears from the lists of mortality, that during the last twenty-seven years the number of deaths has constantly exceeded that of births. The sum total of deaths during the last twenty-seven years exceeds that of births by 41,170.

Sardinia.—The King of Sardinia has granted two colleges, one at *Sassari* and the other at *Cagliari*, to the exjesuits, banished from Spain, who have there established themselves under his protection, by virtue of a brief of the Pope, under the name of the Society of Jesus.

Hamburgh.—Dr. *J. I. Rambach* has lately published a physical and medical description of the city of Hamburgh, wherein he observes, that according to the result of a calculation, including the years 1792 to 1799, the number of deaths yearly exceeds that of births by 596. The number of foreigners is from 8000 to 10,000, and that of marriages, pursuant to the above calculation, 1218 per annum. The population amounting in the whole to 112,000 souls, including 4000 Jews, the yearly number of marriages is upon an average as 1 to 45. With regard to the prevailing diseases, the Doctor remarks that the mode of living of the Hamburghers, who are extremely fond of good cheer, subjects them to gastric distempers. He further observes, that the mortality is greater in winter than in summer, and that the gravel has considerably decreased among the inhabitants since they have made use of tea as a common beverage.

Athens.—The Braakel sailed from Smyrna to this place on the 15th of December 1802, in order to watch the operations of the French; but was nearly lost on her passage. Nothing but the great exertions of her Captain and his crew could have saved the ship.

Smyrna.—One of the Mameluke Chiefs has sent to the house of Mr. Lee of this place about £13,000, in order to have it conveyed to the Land of Security, and placed in the English Funds.

ERRATUM.

In the notice respecting a New Translation of Plutarch, in p. 379, for *Philemor*, in *Holland*,—read *Philemon Holland*.

N. B. The Quotation in page 378, said, in a note, to be from Todd's Milton, page 892, vol. 6—is a criticism of the late Mr. T. Warton.

NOTICE TO CORRESPONDENTS.

*** We have to acknowledge the obliging favours of many correspondents. Press of matter alone has prevented their insertion.

CONTENTS.

Physics.—I. *Observations on Aphides.*—II. *On the Curculio trifolii.*—III. *On the Comparative quantity of labour which a man is capable of performing in a day, according to the mode in which he employs his strength.*—IV. *Review of observations on the vegetable kingdom, in a journey to Morocco, by Schousboe.*—*Notices.*

Literature.—1. *Review of Barbi's Tour through South Wales, &c.*—2. *Stricture on the Edinburgh Review.*—3. *On Miss Seward's Opinion of Southey's Thalaba.*—4. *Review of Mathias's Edition of Crescimbeni's Commentaries on Italian Poetry.*—5. *Of Morelli's Edition of Petrarch's Poems.*—*Notices.*

Manners.—*Essay on Servants out of Livery.*—*Notices.*

Politics.—*Comparative View of the Agricultural and Commercial State of Great Britain and France continued.*—*Correction, by a Correspondent, of some facts in the Life of Lord Redesdale in our last.*—*Notices.*

LITERARY FUND.

THE ANNIVERSARY of the LITERARY FUND will be held, on Thursday, April 21, 1803, at the Crown and Anchor Tavern, in the Strand.

PRESIDENT,

His Grace the Duke of SOMERSET, in the Chair.

VICE-PRESIDENTS.

Right Hon. Lord Pelham	R. J. Sullivan, Esq. M. P.
Lord Viscount Valentia	Owen Williams, Esq. M. P.
Sir John Sinclair, Bart, M. P.	Mr. Alderman Boydell
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Charles Dickason, Esq.	John Peake, Esq.
William Bolland, Esq.	Edward Knight, Esq.

*** Dinner on Table at Five.—No Collection.—Tickets 10s. 6d.

NUMBER 14.] THURSDAY, APRIL 7, 1803.

PHYSICS.

1. *Application of Platinum on Porcelain. By* Klaproth.*

GOLD and silver are the only metals which have been hitherto employed in the metallic state as ornaments on porcelain, glass, and enamel. Gold answers the purpose completely; but silver is far from succeeding so well. Its inferior density prevents it from being applied in coats sufficiently thin. Besides, it readily loses its metallic lustre, and is tarnished by sulphureous vapours. These imperfections have induced painters in encaustic to lay it aside.

Platinum ranks as highly as gold, as an indestructible metal, and its white colour gives it all the value of silver as an ornament on porcelain without having its defects. Its density, which is greater than that of gold, enables it to cover the ground on which it is put completely; it resists every change as obstinately as gold, and is not tarnished by sulphureous emanations. The method of applying it is exceedingly simple.

Dissolve platinum in nitro-muriatic acid, and precipitate by a solution of sal ammoniac. Dry the red-coloured precipitate which is thus obtained, reduce it to a fine powder, and expose it to a low red heat in a glass retort. The muriat of ammonia sublimes, and leaves the platinum in the state of a grey coloured powder. Mix this powder with the proper proportion of fluid, form it into a proper consistence with oil, and apply it to the porcelain in the usual manner. The porcelain is then to be baked and the metal burnished.

The colour of platinum thus applied is silver white, inclining a little to steel grey. By alloying platinum with different proportions of gold, different shades of the same colour may be obtained; for platinum is capable of combining with a great proportion of gold without losing its white colour. For instance, a combination of four parts of gold with one part of platinum can scarcely be distinguished by its colour from pure platinum. The colour of gold is not predominant till the quantity of that metal in the alloy is eight times greater than the quantity of platinum.

Platinum may be applied also to porcelain in a state of solution; but in that case its colour and brilliancy differ considerably. By evaporating the solution of platinum in nitro-muriatic acid to a certain consistency, and applying it in that state repeatedly on porcelain, the metal penetrates the substance of the vessel, and gives it, after it has been baked, the appearance of a metallic mirror, of the colour and brilliancy of polished steel.

2. *On the Preparation and Properties of Arsenic Acid. By* C. F. Bucholz.†

Arsenic acid was discovered by Scheele in 1775, who communicated two methods of preparing it. The first method was this: Dissolve 3 parts of white oxide of arsenic in 7 parts of muriatic acid; add 5 parts of nitric acid; distill to dryness in a glass retort, and heat the residuum to redness; then dissolve it in water. The other method is by means of oxy-muriatic acid. It is more tedious than the first. Mr. Richter has since pointed out a cheaper method. Distill in a crucible equal parts of nitre and white oxide of arsenic; dissolve the arseniat of potass thus formed in water, and decompose it by means of acetat of lead; wash the arseniat of lead which precipitates, and mix it with sulphuric acid, amounting to $\frac{1}{3}$ of the acetat of lead employed, and previously diluted with its own weight of water; digest, filter, evaporate and heat the residuum to redness. Fourcroy affirms that arsenic acid may be obtained by distilling a mixture of one part of white oxide of arsenic, and six parts of nitric acid; but Bucholz has shewn this to be a mistake.

Bucholz ascertained, however, that a much smaller proportion of muriatic acid than has been prescribed by Scheele is sufficient for the purpose. The nitric acid of commerce contains enough. Accordingly he succeeded in forming it by distilling 4 parts of that acid and 1 part of the oxide of arsenic. The process which he considers as the best is as follows. Mix together in a retort 1 part of muriatic acid of the specific gravity 1.2, four parts of the white oxide of arsenic in the state of a fine powder, and 12 parts of nitric acid of the specific gravity 1.25; keep the mixture boiling till the oxide be dissolved, and nitrous gas ceases to be disengaged; then evaporate to dryness in a crucible, and raise the mass rapidly to a low red heat not strong enough to disengage arsenical vapours. It is now solid arsenic acid.

The oxide of arsenic, during its acidification, absorbs, according to Bucholz, 0.100 of oxygen. This is rather above the estimate of Proust who makes it only 0.15. But the coincidence is as great as can be expected in experiments of so delicate a nature. Arsenic acid thus prepared is a poison scarcely less violent than the oxide of arsenic itself. It is white and solid, and almost tasteless. It dissolves very slowly in 6 times its weight of cold water. But two parts of boiling water dissolve it almost instantly, and it remains in a state of solution even though a considerable portion of that water be evaporated. With half its weight of water it has a syrupy consistency, and by further evaporation and cooling it deposits crystals in grains. It gradually attracts moisture from the air and deliquesces. All its solutions have a very acid taste.

These phænomena have induced Bucholz to conjecture that arsenic acid in its dry state is deprived of a portion of its oxygen, which it recovers slowly during its solution in water.

This acid is fixed in the fire. A moderate red heat

* Journal de Chimie, iv. 27.

† Van Mons's Journal de Chimie, iv. 5.

fuses it; but in a strong red heat it is gradually decomposed, arsenical vapours are exhaled, and oxygen gas is disengaged, which occasions a considerable frothing in the mass. In this state it attacks the vessels in which the experiment is made, whether of earth or glass, and forms with their silica a vitreous compound, partly soluble in water, and the solution deposits silica.

Arsenic acid dissolves a small portion of oxide of arsenic at a boiling heat, provided it be not too much concentrated; but it precipitates again almost completely by evaporating the solution to a proper consistency.

3. *An account of a Method of obtaining the Salts of Iron at a minimum of Oxydation.*

Mr. Davy, in the 11th Number of the Journals of the Royal Institution, has pointed out a very simple process for obtaining the salts of iron at a minimum of oxydation. And as these salts are extremely useful, both in absorbing nitrous gas, and in forming with it a compound which rapidly deprives atmospheric air of its oxygen, and therefore constitutes a eudiometer, it is not unfrequently that the chemist has occasion to employ them. Mr. Davy's process is also economical, as the salts are formed during the extrication of sulphureted hydrogen gas from the sulphuret of iron; a gas indispensably necessary for several of the processes of chemistry.

When sulphuret of iron is acted upon by muriatic acid, or diluted sulphuric acid, or acetic acid, the sulphureted gas disengaged, during the solution, prevents any hyperoxygenated salt from being formed by the action of the atmosphere. A clear fluid of a light green colour is obtained, which when freed by heat from sulphureted hydrogen gas, gives a white precipitate with the alkaline prussiats, and does not alter the colour of a solution of galls.

To form a nitrat of iron by the same process, an acid not stronger than of the specific gravity 1.12 must be used, and the solution must be made without the assistance of heat. After being freed from sulphureted hydrogen, and filtered, it is similar in colour and properties to the weakest solutions of the other salts of iron at a minimum of oxydation.

When the sulphat and muriat of iron are obtained in the solid form by evaporation from their solutions, they appear in regular crystals, which in each salt are a different shade of a pale green colour; their tastes are similar, being astringent, and leaving in the mouth the sensation of sweetness.

The nitrat of iron cannot easily be obtained in a crystallized state; for when the solution is heated for any length of time, portions of the acid and water are decomposed, ammonia is formed, and a suboxynitrat of iron is deposited.

4. *Of the new Metal of Proust.*

We mentioned in one of the early Numbers of the Literary Journal, that Proust had discovered a new metal in an ore from Hungary, to which he gave the name of *silenum*. That chemist has just announced that what he had taken for a new metal has proved upon further examination to be *uranium*. Of course the number of metals at present known amount only to 23.

5. *Detonation of Phosphorus and Nitric Acid.**

Brugnatelli has observed that if a thin slice of phosphorus be wrapt up in a paper dipt in nitric acid, the paper when placed upon an anvil and struck smartly with a hammer detonates very loudly. This experiment, though curious, cannot be said to add much to our knowledge. It was known before that phosphorus takes fire in nitric acid. The writer of this article has frequently observed violent explosions, which shattered the retort in pieces when the mixture was exposed to the heat of a lamp. Most of the metallic nitrats detonate with phosphorus, as Brugnatelli himself observed long ago.

6. *The Elements of Natural or Experimental Philosophy. By* Tiberius Cavallo, F. R. S. *in* 4 *vols.* 8vo, 1803.

Mr. Cavallo has been long known to the public by his discoveries in electricity and by many useful publications to facilitate the acquisition of the sciences. The present work is not inferior to any of his former, and we think must prove a very acceptable present to the English public. It is written with much perspicuity; and most of the mathematical part, to render it as little irksome as possible, is introduced by way of notes. Concerning the arrangement which Mr. Cavallo has followed, we do not think it necessary to give our opinion, as the outline of physics which appeared in some of our first numbers will convey to our readers what we ourselves consider as the proper and scientific division of the subject.

Mr. Cavallo has divided his work into 5 parts. In the first part he treats of the general properties of matter, which he considers as six in number; namely, *extension*, *divisibility*, *impenetrability*, *mobility*, *vis inertiæ* or *passiveness*, and *gravitation*. He then explains the theory of motion and all those particulars which are peculiarly connected with it, as the centre of gravity, the percussion of bodies, the pendulum, oscillation, mechanical powers, and projectiles. On all these topics the perspicuity of his style and the simplicity of his illustrations deserve particular praise. He must be a very dull reader who does not follow him even in his explanation of the abstrusest points. On some topics perhaps we might differ from him a little in opinion, were this the proper place to discuss them.

In the second part he treats of the peculiar properties of bodies, beginning with an enumeration of all the known bodies in the universe. Here he gives a list of chemical elements. But by some unaccountable oversight or other he has reckoned among them no less than 18 substances known to be compounds by all chemists; besides one substance which he reckons no less than four times under different names. The compounds which he reckons as simple elements are ammonia, the vegetable and animal acid radicles; and the acetic radicle occurs in his table under the titles of pyro-tartaric, pyro-lignic, pyro-mucic and zoonic, besides its own name. Even the formic acid has not been proved to differ from the acetic. We are far from thinking that Mr. Cavallo is ignorant that the bodies we mention are compounds; but the unaccountable negligence of his phraseology in this part of

* Journal de Chimie, iv. 113.

his book will certainly lead his readers into that mistake. In this part he treats, in their order, of hydrostatics, of the specific gravity of bodies, of the action of non-elastic bodies in motion, of the attraction of cohesion and capillary attraction, of the motion of waves, the motion of fluids through holes, pipes, canals; of pneumatics, wind, acoustics, musical sounds, and the principles of chemistry. Much curious and important information is communicated in a small compass. The most imperfect and inaccurate of the chapters belonging to this part are those that treat of chemistry.

The third part is occupied with the consideration of caloric or heat, light, electricity, and magnetism. The fourth part treats of astronomy, and the fifth part gives an account of aerostation, of meteors, and of stones supposed to have fallen from the sky, and of weights and measures.

It is impossible for us to attempt an analysis of a work which embraces so extensive a field; but we have perused it with much pleasure, and do not hesitate to recommend it as an excellent introduction to the study of natural philosophy.

7. *A Short Account of Pelletier.**

Bertrand Pelletier, a chemist of considerable eminence, was born at Bayonne in 1761. He acquired the rudiments of pharmacy in his father's house, and afterwards was for five years a pupil of Dorcet, at that time professor of chemistry in Paris. These advantages, together with a constant application to his studies, rendered Pelletier at a very early age familiarly acquainted with chemical processes, and even with the exact state of the science. At the age of twenty-one he published a set of experiments on the arsenic acid, in which he explained the properties of Macquer's *Neutral Arsenical Salt*, and demonstrated the real nature of Macquer's process. In these observations he had been anticipated by Scheele, by Bergman, by the Dijon Academicians, and by Berthollet: but it was no inconsiderable merit in so young a man to have advanced as far in the subject as these masters of the science.

Soon after he published several observations on the crystallization of sulphur and cinnabar, on the distillation of phosphorus from bones, on deliquescent salts, on oxymuriatic acid, on the formation of ethers, and particularly on muriatic and acetic ethers. His success in these encouraged him to attempt the analysis of the Zeolite, at that time a much more difficult task than at present, when the mode of analyzing minerals has been reduced to a regular system. He found it a compound of silica, alumina, lime, and water; and showed that specimens of calamine were sometimes mistaken for it. In 1785 he undertook the analysis of plumbago, a labour in which he had been anticipated by Scheele, and which was completed the year following, in the course of the celebrated experiments made upon iron and its combinations, by Berthollet, Monge, and Vandermonde.

His next object was the combination of phosphorus with the metals, combinations, the existence of which had been merely pointed out by Margraff. To Pelletier we owe almost all the knowledge concerning the metallic phosphurets which we at present possess. The next object of his researches was *aurum Musivum*, a brownish yellow scaly powder sometimes used in painting. He demonstrated it to be a compound of sulphur and the oxide of tin, and pointed out several improvements in the method of preparing it.

In 1790, when the churches of France were stript of their bells, and it was proposed to extract the copper from them, Mr. Pelletier pointed out a method of scorifying the tin, which constitutes the other ingredient, by means of the black oxide of manganese. His first essays were made in Paris, but he demonstrated in the foundery of Romilly that his process succeeded also in the large way. Soon after he analyzed the blue pigment manufactured in England, and known in France by the name of *cendres bleues d'Angleterre*, and gave a process for preparing it. Nothing more was necessary than to precipitate copper from nitrous acid by means of a sufficient quantity of lime.

His next set of experiments consisted in an examination of strontian, and in a comparison of it with barytes. They confirmed the previous experiments of Dr. Hope and Mr. Klaproth. He had formerly examined a small specimen of carbonat of strontian without finding in it any thing peculiar.

In the year 1791, on the death of Tillet, he was admitted a Member of the Academy of Sciences, and on the abolition of the academy, he was chosen one of the original members of the National Institute which was substituted in its place. In 1792 he went to La Fere to assist at the trials of a new kind of gunpowder. Being obliged to spend the greatest part of the day in the open air, in a cold raw day, his health, naturally delicate, was considerably impaired. But he had gradually recovered almost completely, when he fell a sacrifice to the science to which he had devoted the whole of his attention. He breathed at different times, and during long periods, oxymuriatic acid gas. The consequence was a consumption, which wasted him rapidly, and at last carried him off on the 21st July 1797, in the 36th year of his age.

Short as the period of his life was, the services which he rendered to chemistry were by no means inconsiderable. His analyses are always precise, and his dissertations written with that perspicuity which marks the clear thinker, and the master of his subject. His fondness for the science was extreme; he continued his labours to the very last, and even on his death-bed spoke of them with satisfaction. His constitution was always weak, and his character marked with timidity; but his mind was remarkably active, and his conduct irreproachable.

* Mem. de l'Inst. Nat. II. 1. p. 135.

NOTICES.

At the Meeting of the Royal Society on Thursday the 31st of March, the Right Hon. Sir Joseph Banks in the Chair, Recapitulations of *Mr. Davy's* paper on Astringent Vegetables, and of *Mr. Shroeter's* Observations on the Ring of Saturn were read. Mr. Davy divided his remarks under five heads, one of which considered the quantity of the Tanning Principle in the *Terra Japonica*, of which there are two sorts, both formed from an infusion of the

Mimosa; these sorts come from Bombay and Bengal. The additional observations of *Mr. Shuckter* informed us, that much remains to be ascertained before any thing certain can be determined on respecting the Ring of Saturn. A Memoir was also read on the experiments made on gunpowder by *Mr. Robuck* of Bombay. Mr. R. is of opinion that the washing of the saltpetre, though universal in the French powder mills, tends to weaken its strength: and that the touch-hole should be as low as possible on the cannon. The Society proceeded to the immediate ballot and election of Lord Viscount Charleville an Irish Peer, who was proposed by the President. The Society was then adjourned, in consequence of the approaching festival, to Thursday the 21st of April. The Duke of Norfolk attended the sitting of the Antiquaries, but went away before that of the Royal Society commenced.

We learn from Mr. Percival's lately published Account of Ceylon, that the Tea-plant, equal to any in China, has been discovered to grow wild in the woods of that island. This fact is worthy the attention of our government.

On the 27th of last month, the celebrated astronomer Lalande, presented to the First Consul, in the name of the Board of Longitude, a sort of Astronomical Almanack for the year 1805 (*Connoisance des temps de l'an* 13.) This work, of equal utility to astronomers and navigators, contains all the important discoveries which have been made in astronomy in the course of a year; memoirs and observations by Mechain, Delambre, Messier, Lalande the nephew, Burckhardt, Chabrol de Murol, Vidal, Flauguergues, &c.; a new catalogue of stars which raises to 13,000 the number of those which have been classed, extracted from the 50,000 which have been observed.

The celebrated naturalist Pallas has settled in the Crimea, where he applies himself to the culture of the Vine. It is expected that he will at least derive no little pecuniary advantage from this employment.

LITERATURE.

1. *Geography.*

THROUGH the favour of Mr. Arrowsmith we have received some important communications from Port Jackson, consisting of Observations made in the *North* and *South Pacific* by Mr. Simpson, Commander of the Nautilus. This gentleman has discovered in S. lat. 11° 17′, and E. long. 167° 58′, an Island which he has called *Kennedy's Island*. From its beautiful appearance, united to its being well inhabited, Mr. S. is of opinion that it may prove a valuable acquisition to our new Colony, particularly as it produces hogs in abundance.

"The Natives are savage, artful, and treacherous upon *Dexter's Group*, or *Duff's Group*; which obliged me to fire upon them; and this may be a necessary precaution to any person, who may wish to land upon them hereafter.

"Upon the Island *Disappointment* I landed some Fowls; sowed several sorts of Seeds, and put some Plants into the ground. In two previous voyages I passed this Island, without the precaution of looking for land, as I am sure many other Navigators have [illegible]ne. We found upon it the remains of a very large [illegible] Mast, next the keel; which led us to think [illegible] Spanish Ship had been wrecked upon it: [illegible] have been long since, as the timber was [illegible]d.

"[illegible]e Islands are mainly inhabited, we scarcely saw one in the whole of this group but had natives upon it; and when our distance sunk the Reefs below the horizon which extend from island to island, the natives, as they crossed from one to the other, presented the appearance of a regiment of Soldiers marching round the horizon on the surface of the sea. All the Islands are exceeding low, and shew at first, like all the rest in this labyrinth, a few scattered trees above the horizon. This circumstance will demonstrate their danger to a seaman; who cannot be too much on his guard in so perilous a navigation. I am fully persuaded that not one hundredth part of them are known to Navigators. They appeared to us to be formed of coral and sand, lightly covered with a thin black soil: the Stones on the Shore had the appearance of having been burnt: They were black, porous, and light."

To the above remarks of Captain Simpson, we add his description of the Island Alamagan, one of the *Maria* Islands.

Nautical Observations and Description of the Island Alamagan. Ship Nautilus, Oct. 28, 1800.

Running down along the north part of this Island, when the east point of it (a small distance from which stands a very remarkable high perforated rock) bore by compass S. 8° E. the Island Sarigan was on with it.

Whilst laying to in Howel's Bay, the Island Pagan bore by mean of all our compasses N. 14° W.

I much regret that commercial interest forbids my running along these Islands as far as Urac; as connecting and examining this chain of islands, is an object, in my opinion, of some consequence to those who navigate these seas; all that I have seen of them are extremely fertile and pleasant.

This Island naturally produces, in an uncommon abundance, Papaw apples, sugar-cane, a Nut which eats much like an almond, and is enclosed in a light green rhind, a root which is distinguished at Sandwich islands by the name of Peea, and grows and looks much like a potatoe, but with a very different stalk, a drawing of which accompanies this, and will best explain it.

In its crude state it is considered by the Owhyheeans as a poison, they prepare it in the following manner: the root is first well washed, then marked and mixed up with fresh water to about the consistence of batter; after which they let it settle and draw the water off. They let it undergo this operation several times, it then stands in the sun, they then draw the last water off, and it soon dries and resembles flour; it then may be cooked the same as Sago, and I much query if many persons could tell the difference between it and Sago; at Owhyhee I have often eat it in preference to Sago.

A Mallay woman that accompanied Captain Coolige in one of his visits to Owhyhee, attempted to prepare and form it in the manner the Mallays do, but did not succeed; however she owned herself unequal to the task, but said if her countrymen had it, they could with much ease give it the form that we generally see Sago in. It must, of course, make a good substitute for bread.

This Island produces a number of plantain or banana trees, but I never saw much of their fruits; and cocoa-nuts. In addition to these we have added,

by planting and sowing in this bay, in different parts along the shore, water and musk melons and pumpkins; yams, landed and planted in a state of vegetation; cabbage plants and European potatoes; we also landed a male and female kid, in very high order, about six weeks old; also two cocks and two hens.

Mr. John Howel, in the Lady Washington, in 1786, landed some hogs here; and although in visiting this Island twice since we have not seen any of them, yet there is no doubt but they exist, as the print of their feet has always been seen; some of our party thought they saw the print of the feet of some large animal that eats grass (by its dung) as large as a horse.

The Birds are of the aquatic kind, and pretty numerous. There are a species of land-crabs, known in the West-Indies by the name of Soldier; they are very large, and nice eating.

There is also an abundance of all sorts of Fish. Sharks are numerous, particularly near the shore.

From the form of this Island, I conceive a landing may always be effected on some part of it; however, when possible, Howel's Bay should certainly have the preference; at all events it cannot be worse landing here than at most of the West India islands.

The Climate and Air must be judged of by its situation, as our usual visits and short stays cannot determine them. Our thermometer in the bay, at noon, stood at 84° upon deck in the shade; but upon the whole I am inclined to think them very salubrious.

Our anchorage, in 1799, is marked by an anchor in Howel's Bay; but we were too near the shore to term it safe anchorage, and we could get no soundings farther off.

Although this Island is situated in the line of the N. E. trade wind, yet as I (and others) have often met westerly winds, and sometimes very strong ones, I would not recommend anchoring so near the shore, unless a strong trade wind and clear weather should warrant it safe; in that case I would trust it safe, as the westerly winds are always (at least that I witnessed) indicated by heavy clouds, light variable airs, and unsettled weather.

The North mountain burns very much; the southern ones just smoke, but very little.

Having filled the Ship with cocoa-nuts, fire-wood, crabs, and papaw apples, and accomplished our business, at sun-set we hoisted the boat in, and made sail for China.

We were not in want of fresh water, and too much otherwise occupied to seek for it, except what the party wanted for their drink, of which they found sufficient, and very good.

ROGER SIMPSON.

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2. *An Account of the Island of* Ceylon, *with the Journal of an Embassy to the Court of Candy, by* Robert Percival, Esq. *of the 19th Regiment of Foot.* 4to.

Mr. Percival, during a residence of three years in Ceylon, had occasion to visit almost every part of the coast, and became quite familiar with the general appearance of the country, its natural productions, the present state of its cultivation, and the manners and dispositions of its inhabitants. Having been appointed to attend the embassy sent to the king of the island, he had also an opportunity of observing the interior country, which the jealousy of the natives has seldom permitted any European to penetrate: and all these advantages were improved by the assistance of Mr Dormieux, a Dutch gentleman in the English service, who had acquired a knowledge of the manners and languages of the several classes of inhabitants by a residence of twenty years. Encouraged by these advantages, stimulated by a conviction of the great importance of the island, as well in a political as in a commercial view, and observing how very imperfect the accounts of it, hitherto published, are, he assiduously improved every opportunity of collecting materials for the work, which he has composed with the hope of rendering this new acquisition more valuable to his country.

The first chapter contains a brief history of the island, from the arrival of the Portuguese in the year 1505, till the reduction of it by the British forces in 1795.

The five next chapters contain descriptions of the various parts of the island, wherein our author professes to give nothing but what is either from his own knowledge, or authenticated to him in the most indubitable manner.

'The principal harbours in the island for large ships are Trincomalee and Point de Galle. They also come to anchor, and at certain seasons of the year moor securely in the roads of Columbo.' 'But Trincomalee 'from its nature and situation is that which stamps Ceylon one of our most valuable acquisitions in the East Indies. As soon as the violent monsoons commence, every vessel, which is caught by them in any other part of the bay of Bengal, is obliged immediately to put to sea, to prevent inevitable destruction. At these seasons Trincomalee and Bombay alone, of all the ports on the different coasts of the peninsula of India, are capable of affording a safe retreat.' 'A vessel from Madras may arrive here in two days, and can at any time make the harbour. These circumstances point out Trincomalee as an object of peculiar attention to our government, and of far more consequence to retain, than the whole of the rest of the island.' (pp. 35, 42.)

During the pearl fishery, at which several thousands of people of different colours, countries, casts, and occupations, divers, brokers, jewellers, &c. assemble, the barren sandy beach of Condatchy is converted into a scene of activity, bustle, and interest, which continues from February to April. The multitude of boats returning in an afternoon from the pearl banks, some of them loaded with riches; the anxious expecting countenances of the boat-owners; and the various operations of sorting, weighing, valuing, and selling the pearls, fill the mind with the importance of the object, which gives activity to so many people. Pearls are considered as, next to cinnamon, the staple of the island; and the concourse attracted by the fishery, affords a facility for disposing of other produce, which may be improved into an opportunity of introducing our manufactures into various parts of India. (pp. 59, 73.)

In Columbo, the European capital of the island, the general language is the Portuguese of India, a base corrupt dialect, quite different from that of Portugal, being a compound of Indian and European languages, wherein the French is very distinguishable.

It is the universal language of the slaves: and the Dutch ladies, being usually nursed and bred up among their slaves, scarcely ever speak any other. (p. 115.)

Columbo, notwithstanding the indifference of the harbour, which is so much exposed to the rage of the monsoons during eight months of the year, that all ships leave it before their approach, being situated near the cinnamon plantations, has a great deal of trade. Vessels from Madras and Bengal call there on their way to Europe, and take in cinnamon and pepper. Great quantities of arrack and coya rope are sent to Bengal, Madras, and Bombay, which in return send rice and other articles wanted in Ceylon.

'Every year, in general towards February, a Portuguese or Chinese ship arrives from Macao with teas, sugar, candied sweetmeats, hams, silks, velvets, nankeens, umbrellas, straw-hats, all kinds of China-ware and toys. These articles meet with a very speedy sale; and as they are generally paid in hard money, they occasion a great deal of gold and silver to be carried out of the country.' (pp. 106, 116, 117.)

The seventh chapter contains descriptions of the several adventitious races of inhabitants. Mr. P. represents the Ceylonese Dutch as a lazy, listless, and ignorant race. The flame of patriotism and valour, which once rendered the Dutch the admiration of the world, is now so totally extinguished, that they made scarcely any opposition to the British forces; and in particular, they permitted General Stewart, without offering the slightest opposition, to pass along a continued defile of twenty miles, where it would have been impossible for him to defend himself against a very inferior force.

'A thirst of gain and private emolument appears to have swallowed up every other feeling in the breasts of the Dutchmen; and this is a striking warning to all commercial nations to be careful, that those sentiments which engage them to extend their dominions, do not obliterate those by which alone they can be retained and defended.' (pp. 89, 135.)

The Portuguese, so called, are a mongrel race descended of all the European possessors of the island, of Moors and Malabars, and of the Ceylonese women; and they are of all shades of colour, from black to sickly yellow. They are lazy, treacherous, effeminate, passionate, and vain; affecting, like their nominal ancestors, a pompous long string of names with the Don prefixed to them. Those of them who apply to trades, as goldsmiths, jewellers, joiners, &c. are reckoned excellent workmen. (pp. 49, 143).—The Malays form a considerable portion of the inhabitants of Ceylon. They are a ferocious and bloodthirsty race of well-made men and handsome women, of a light brown or yellow colour, with long, coarse, and black hair. (p. 146.)—These three classes comprehend the adventitious inhabitants of that strip of coast, which has long been subject to the Dutch, and is now a part of the British empire: but the Ceylonese, or Cinglese, are by far more numerous than them all.

The eighth chapter is employed upon the manners of the Ceylonese. Those, who are independent of the Europeans, are distinguished by the name of Candians, and the name of Cinglese is almost appropriated to those who are subject to the Europeans. These latter are of a stature about 5 feet 8 inches, and fairer than the Moors or Malabars of the continent, but not so well made, nor so strong: neither are they so fair, so well made, or so hardy as the Candians. The women are fairer than the men, and approach to a yellow or mulatto colour: they are clean and neat in their persons and houses, and particularly nice in their cookery. These people live chiefly upon fruits and rice, together with fish where they are in abundance; but they seldom touch flesh. They are remarkably polite, or rather excessively ceremonious, and most punctiliously observe the difference of ranks in all their actions. They are not guilty of stealing and lying like other Indians. They are mild in their mutual intercourse, unless their anger is roused, which is furious and lasting. They treat their women with more attention than the other Indian nations, more like European wives than Asiatic slaves. A Cinglese husband, instead of jealously confining his wife, is rather desirous of obtruding her upon the public eye, and, if she takes care not to be caught in the fact, he is not much offended at her infidelity, nor does it hurt her reputation, unless she connects herself with a man of an inferior cast, which is infamous indeed. The most unbounded licentiousness is practised without any sense of disgrace among people of the same rank, the nearest relations not excepted. Women of the first rank think themselves not disgraced, but honoured, by connections with Europeans. Marriage may be dissolved by consent as often as the parties think proper, the woman retaining her marriage portion. It is also customary for a man and woman to live together by way of trial of each others tempers, with a view to marry if they prove mutually agreeable; and, in case of separation without marriage, the woman is nothing less esteemed for her cohabitation with her former lover.

Mr. P. says there are two dialects of the Ceylonese language considerably different. The poetic or court language is called the *Candian Sanscrit*, or more properly the *Paulee* or *Mangada*. It is thought the most elegant, contains a good deal of Arabic, and is chiefly preserved in the interior part of the country. The natives say, that Arabic is their original language, and that some mixture of the Sanscrit was introduced by a colony from the continent, who entered the island by Adam's bridge. The Gonies, a *learned* sect, who can read and write, use Arabic characters. The language on the coast, called Cinglese, is corrupted by a mixture of foreign words.—When the natives say, that Arabic is their original language, they in fact say that they are descended of an Arabian colony: and the learned reader will find something corresponding with such an idea in one of the earliest accounts of the island brought to Europe. (Plinii Hist. Nat. l. vi, c. 22.) [*To be concluded in our next.*

NOTICES.

The Society of Antiquaries have adjourned their Sittings to Thursday the 21st instant.

A periodical Essay of considerable repute, called *The Crier*, which appeared about 15 years ago, in the Bristol Gazette, has lately been resumed. The principal writer is a man of considerable literary abilities, who possesses very ample and original Anecdotes relative to *Chatterton*: We therefore hope that these Essays will be reprinted. And as

the real truth has never appeared respecting the *poetry of Chatterton*, we wish, now the fever of the public mind is subsided, that the *plain matter of fact should be ascertained*. ORIGINAL POEMS, OF A VERY EARLY DATE, AND OF VERY CONSIDERABLE MERIT, CERTAINLY DID EXIST IN A CHEST, IN ST. MARY-REDCLIFFE OF BRISTOL, LONG BEFORE CHATTERTON WAS BORN.

The Sale of Duplicates mentioned in our last, finished on Friday. The *Duke of Norfolk* purchased on *Thursday*, the *Proclus in Platonem, Græce, notis* M. S. *Chart. Max. corio Russico, Basil*, 1534, for £1 18s.—*Mr. Dalrymple* made some purchases by proxy.—*Dr. Burney* bought the *Rutilius Lupus, Editio rarissima, Paris ap Rob. Steph.* 1541, for £3 4s.—*Orphei Argonautica*, Gr. et Lat. corio Russico, Basil, ap. Cratand. 1523, for £1 7s. &c. &c.—The *Sagard Voyage des Hurons, Par.* 1632.—*Sagard Dictionaire Huronne*, Par. 1632, one Volume, was knocked down for £6.—A very fine copy of *Vies de Plutarch par Amyot*, Russia, ruled, 2 Tom. Lutet. 1565 went for £1 16.—On *Friday* many scarce books were bought cheap.—Sapientum Dicta, Gr. et Lat. Chart. Max. rariss. Par. ap. G. Morel, 1563, 6s. 6d.—*Hen. Stephani Proverbes et Epigrammes, corio Turcico.* ap. H. *Steph.* 1594.—*Statuts de l'Ordre du St. Esprit, grand papier, reglé, en Maroquin, feuilles dorées, avec additions*, M. S. *l'imprimerie Royale, Quarto, Medial.* 1621, £1 2s.—The *Sandart Academia Todesca, Germanice, cum multis figuris et Iconibus elegant. Pr. impress. Corio Russico, Nuremb.* 1765, was bought we believe by the *Marquis of Blandford*, for £4 10s.

On *Friday*, April 1st:—Turner's *Romish Fox, Winchester* 1543, very scarce, was bought by *Mr. Hever*, for £2 3s.—The *Norman Tristan par Maugin*, en Maroquin, *et feuilles dorées, 2 Tom. Lyon*, 1577, went for £1 8s.—*Anderson's History of the House of Yvery*, with two additional Views, and the Appendix, fair copy, Morocco, Gilt Leaves, 2 Vols. Lond, was bought for £11 15s. Many scarce Editions of the Classics were knocked down to *Dr. Burney*. Some phrchases were also made by *Mr. Dalrymple*.

A Sale of some Duplicates belonging to *Mr. R. Heathcote*, will soon come on at Jefferies'.

Mr. Edwards, in his *Natural History of Birds*, Part the fourth, and last, has the following Dedication:

TO
GOD,

The One Eternal! the Incomprehensible! the Omnipresent! Omniscient, and Almighty Creator of all things that exist! from Orbs immensurably great, to the minutest Points of Matter; this Atom is dedicated, and devoted, with all possible Gratitude, Humility, Worship, and the highest Adoration both of Body and Mind,

By His most resigned,
Low, and humble Creature,
GEORGE EDWARDS.

Mr. Natte, of New Bond-street, has published the first Number of his *Elementary Lessons in Drawing*; the Etchings are after the manner of Chalk drawings. The Work is intended to form a Drawing Book for the Study of Landscape, from Views drawn by Mr. Natte in England and France, beginning with the easiest examples.

A *Selection of Antique Gems*, to be engraved in the manner of Chalk from Drawings by R. Dagley, is about to be published in Numbers; it will comprise the most admired and beautiful Specimens to be met with in the Greek Sculptors, and chiefly such as have not been made public. It will also contain the greatest variety of Subjects and Heads illustrative of the Heathen Mythology, and the fabulous history of the Ancients; together with the Animals, Symbols, and Fragments found on Ancient Gems.

The following is an inscription of which the original is in London on a stone brought from Egypt.

ΟΚΤΑΙΟΝ. ΡΟΥΦΟΝ. ΣΤΡΑΤΙΩΤΗΝ.
ΤΗΝ. ΑΠΟ Β. ΤΡΑ. ΙΣΧΥ. ΕΥΨΥΧΙΑΙ.

Octavius Rufus a soldier of the second legion of TRAjan excelled in magnanimity. The two last words are abridged, at length thus, ΙΣΧΥΣΙΝ ΕΥΨΥΧΙΑΙ. The word ΟΚΤΑΙΟΝ is generally written ΟΚΤΑΟΥΙΟΝ.

ΑΠΟ Β ΤΡΑΙ. Λεγίων Στρατιώτη occurs in Banduri, vol. 1. p. 523. 538.

Mr. Edmund Turner is preparing for the Press, *The History and Antiquities of the Town and Soke of Grantham, in the county of Lincoln*, to be embellished amongst other engravings, with a View of the country about Woolsthorpe, the favoured spot which gave birth to Newton, of whom some interesting particulars will be inserted.

Mr. G. Ellis is preparing an Analysis of the Ancient English Metrical Romances.

Dr. Leyden is employed in a history of Africa, on an extensive scale.

Mr. Henderson is preparing for the Press, a volume of selected Sonnets, from the most admired Authors, with elegant Engravings by the first Artists.

The Rev. Thomas Robinson, Rector of Ruan Minor in Cornwall, is on the point of publishing an Enquiry into the Necessity, Nature, and Evidences of Revealed Religion. The volume is dedicated to his Grace the Duke of Leeds.

Mr. Philips is printing his history of Inland Navigation in an abridged form. Without cancelling any very essential matter, he will be enabled to compress his Work into an Octavo volume at a moderate Price.

Dr. Darwin's Posthumous Poem is at last ready:—we shall lay an early account of it before our readers.

We have already noticed the death of the celebrated poet Klopstock. His funeral was celebrated at Hamburgh on 22d of March with extraordinary pomp. At ten o'clock in the morning a procession of 76 coaches, composed of the senate, the diplomatic body, the clergy, the professors and members of the two gymnasiums, the men of letters, and a number of merchants, repaired to the house of the deceased. The body was drawn by four horses, escorted by a guard of honour on horse and foot. After having traversed the principal streets of Hamburgh the procession moved out by the gate of Altona, and was received at the entrance into that last city by the first president Stegman, accompanied by the officers of government, the professors, the clergy of Altona, and the citizens of all classes. Three young women, dressed in white and carrying crowns and baskets of flowers, preceded the retinue, which being increased by 50 carriages, arrived at the burying ground of the village of Ottenten, the place of interment. All the guards of the two cities payed military honours, and the ships in the harbour hoisted the mourning flag. The procession having arrived at the temple, the poem of the *Messiah* was placed on the coffin; at this instant a young man stept out of the crowd, and placed a crown of laurel on the book which was open, and the young women of Altona fixed theirs likewise on the coffin. At the same moment a sublime strain of solemn music was sent up by more than a hundred performers. During a moment of silence, an individual of the retinue advanced towards the coffin, took up the poem of the *Messiah*, and read the 12th canto, after which the coffin was deposited in the place destined for its reception.

Count *d'Ayala* has lately edited at Vienna the posthumous works of the celebrated *Metastasio*. They consist of a large collection of very instructive and interesting letters; of *Metastasio's* observations on the tragedies and comedies

of *Sophocles* and other Greek poets, chiefly tending to prove, that they did not observe any unity either of time or place; two sonnets and two cantatas never before published, and a sketch of Metastasio's life by the editor, who with great judgment has suppressed and excluded from this collection whatever appeared to him unworthy of the attention of an enlightened public, bearing in mind the following ingenious remark of Metastasio in a letter to father M. Mazzochi at Siena.—

"*Sarebbe insulto e non favore trascinar a viva forza un onest' uomo in farsetto e berrettin da notte dalla sue camere in piazza.*" [It would be an insult rather than a favour, to drag an honest man in his jacket and night-cap from his apartments forth to public view.]

Mr. *Cheraskow*, privy counsellor and author of two epic poems in the Russian language, entitled "The Rossiad," and "the Battle of Tschesme," dismissed from his place as President of the University of Moscow, by Paul I. has been reinstated by the present Emperor of Russia. Prince Beloselsky has been promoted to the rank of privy counsellor, and Professor *Kostowsky* has obtained that of assessor, as a mark of distinction for the talents and zeal he displayed in the erection of a monument in memory of the celebrated Prince *Souwarow*.

Mr. *Nastow*, privy counsellor and president of the Agricultural Society, has been appointed president of the Academy of Sciences at Petersburgh.

Mr. *Marshal of Bieberstein*, who has already published an excellent description of the countries situated between the *Terek* and *Kur*, near the Caspian Sea, is engaged in preparing for the press some further accounts of those parts, whither he returned in 1798, by order of the Russian Court to explore still more minutely the banks of the *Terek* and the northern part of Mount Caucasus.

Pecorata and Co. booksellers at Pisa, have lately published a complete edition of the works of *Abbate Cesarotti*, the learned and celebrated translator of Ossian's poems, who composed a particular Dictionary for the purpose of pointing out the originality and peculiar beauties of Ossian. This edition vies in point of neatness and elegance with the best production of the press of Bodoni.

Mr. *Sumarakow*, whose travels in Bessarabia and the Crimea have been lately published in the Russian language, gives the following account of *Nikolow* and *Odessa*, two new towns in Bessarabia, built by order of the Russian government, which have not yet been described by any of our modern geographers.

The former was founded after the reduction of Oczakow, and contained in 1799 already 800 stone buildings, a third of which belonged to the crown. It is the seat of the first admiralty-board of the Black Sea, and contains two churches, and two custom-houses for Russian and Grecian commodities. Its situation on a mountain at the confluence of the Bug and Ingul is rather unfavourable, because the inhabitants are obliged to draw from Cherson by land the necessary supply of timber and fire-wood, whereby those articles are rendered excessively dear.

Odessa is situated 10 miles from Oczakow, which is at present a miserable village, and 30 miles from Ackerman; it is built on a mountain, which borders upon the Black Sea near an excellent port on the spot, where formerly stood the ruined fort of *Gadshibay*. In 1795 several Russian regiments were employed in the construction of Odessa, which advanced so rapidly, that in 1796 upwards of 60 Austrian, Neapolitan, Turkish, and Grecian vessels entered its port, and raised it to the rank of a commercial city.

In 1779 it contained 5 churches, 1 chapel, 1 synagogue, 506 stone-houses, 500 shops, 5 inns, 36 warehouses, &c. The number of inhabitants amounted in the whole to 4847, among whom were 400 foreigners, and 300 Jews. The former have their particular magistrates.

MANNERS.

AN intelligent Correspondent, to whom we have been more than once indebted for useful hints, writes thus on the subject of FEMALE DRESS.

"After complimenting the correct taste which at present prevails in female drapery, he adds, "the Costume, indeed, is mixed, and the whole dress is frequently composed of Grecian Antique, Modern Turkish, the Armenian mantle, and the Vandyke head-dress Yet the whole is well adapted to express elegance: and, except in those instances where an old dowager strives to appear young, or a modest young woman is ambitious of too much nudity, every one must admire the great improvement that has taken place. It behoves you, also, even as Censors of the prevailing manners, to recollect, that the chaste and rigid Lycurgus ordained that the young unmarried female should display parts of her beautiful form in perfect nudity through the interstices of her dress, purposely to attract attention. There is certainly a mean, and a golden mean in this, as well as in every thing else: but this mean must, and ought to be influenced by the maxims of real taste. We in this light are glad to see the female hat, taken as it now is, from the pictures of Titian, and the ladies' drapery copied from the finest specimens of the Grecian statues." SQUI.

We are glad to have an opportunity of subscribing heartily to the opinion of our Correspondent, that the female dress is at present, and has indeed for some time, been made up in more correct taste than formerly; and this must ever be the case when the chaste and classical models of the ancients are followed in preference to the whims of some milliner or mantua-maker who may have a quantity of any particular article on hand, and by way of getting rid of such dead stock, makes it up in some whimsical shape, and persuades her customer that they may *lead a dash* with great eclat. From this last source we have derived many of those improprietics in dress which have of late years been revenged on the fair sex by wits and moralists.

With respect to the late attempts at nudity, it is no secret whence that fashion was introduced, and it is certainly not much to the honour of those who introduced it that they should be so eager to copy the manners of a metropolis so extremely dissolute. With the fashion, however, they ought to have imported the warmer climate of our lively neighbours. Having omitted that article, they have left their pupils to be re-dressed, not by the purveyors of fashion, but by the sage advice of the learned of Warwick-lane; and if we have not been misinformed, cases of a fatal nature have occurred, sufficient to prove that we are not in a situation to return to the manners of our ancestors the Picts, nor to those of our more remote relations in the primitive days, who were "naked and not ashamed."

During war there is an interruption to the intercourse of fashion between France and England, and

of course some degree of stagnation in that important concern. But it must be confessed that during the late war, our ladies laboured as hard as our ministers, to preserve the integrity of trade, and to show that our commerce was rather extended than diminished. For some years, during the maddest part of the revolutionary system of France, our belles could derive no assistance from that country, and yet when left to their own invention they discovered no want of correct taste, or original genius. Hats, bonnets, caps, curls, and cloaks, evidently demonstrated that they "were not scratched by the war:" and had it continued for a longer period, we are assured that the resources of Jermyn-street and Bond-street were fully adequate to carry it on with success, and to enable the ladies to defeat their enemies without borrowing a single weapon from the Continent. We record these particulars with triumphant pride. It must ever be a pleasing reflection, amidst the calamities of war, that Old England grows charms enough for its own consumption, and that a non-importation act, whether it be a measure of consent or necessity, will not save one heart which is penetrable by the beauties of eye, feature, and complexion.

Among other resources, during the suspension of regular commerce between the rival nations, we could not but contemplate with great satisfaction, the use made of our brilliant naval victories. These furnished a continual supply of honours to be paid to the gallant heroes, and some cap, bonnet, ribbon, &c. was continually put in commission to make the wearers look as killing as the brave officers whom they thus complimented. Among the services performed by our Howes, St. Vincents, Duncans, and Nelsons, let it not be forgot that they animated female ingenuity, and heightened female charms.

Fashions of dress which have thus a relation to the feats that do most honour to our country, cannot be too highly applauded. But where there is much room for praise, there is also some for censure. We would therefore hint to our fair countrywomen, that as the honours of a cap, or a bonnet, or the form or colour of a ribbon or bandeau, are the highest which they have in their power to bestow, they ought never to diminish the value of them by conferring them on persons of inferior merit, or who excel only in some trifling accomplishment. This caution will not, we trust, appear impertinent to those who can remember that about twenty-two years ago, every lady who wished to be in the fashion, appeared in a blue silk dress in compliment to Mess. Vestris, father and son, the opera dancers. There was, if we remember right, a shade of difference in the colour, which pointed out whether the dress was worn in honour of the father, or of the son. Now we submit to our fair readers, that this was rendering the honours in their gift extremely cheap, and we would further appeal to them whether it would be considered as any compliment to place such men as Howe, Nelson, &c. on the same footing with a French dancer.

But perhaps it may be said that the present generation know nothing of this. It was the act of their mothers: and this is in some respect true: twenty-three years, we hope, is too long a period for any lady to remember, without one of those unpleasant discoveries of *age* which cannot or ought not to be made in any civilized company. Yet while we allow that the incident above-related belongs to our *ancestors*, we would hint that *some things* of the kind may be yet discernible. A particular kind of handkerchief, or shawl, has lately been very generally worn, both by males and females, which is known in the shops by the name of a *Belcher*. Now, besides the unharmonious name, which certainly conveys no very pleasing ideas, what will they think, who are yet ignorant of the fact (if there be any such in any nook or cavern of this kingdom) when we inform them, that this handkerchief derives its popularity from one of the lowest of all human beings, from a *professed boxer*, a character with which it is natural to connect every thing savage and barbarous.

Yet it must be confessed that such improprieties can seldom be laid to the charge of the fair sex. If we wish to swell our paper by innovations of the strangest kind, in dress, we must look to the other sex. During the same period which we have reviewed, that of the last war, their invention was seldom employed but in an imitation of the manners of revolutionary France at its worst moments. The disuse of hair-powder may appear a frivolous objection, but if duly examined it will be found neither very honourable in the source, nor in the eagerness of example. Had it been derived from improved taste, convenience, or, what some pretend, cleanliness, it might have been praised without reserve and adopted with advantage. But it was immediately and specifically derived from the republicans of France during their most infuriated career. It was an emblem of liberty, although in what respect powdered starch is connected with despotism has never yet been explained. With the powder, however, the hair disappeared, these innovators thus endeavouring to prove that nature had bestowed that ornament for no other purpose than to be powdered and curled, a very singular discovery, to which, however, we were indebted for the whole race of crops. If this fashion were worth contending for, we might indeed strip our neighbours of the merit of the invention, by referring to the *round heads* in the revolutionary days of Oliver Cromwell, but we are not ambitious of reviving the memory of such transactions, and only allude to the circumstance here as a small proof, that when the furor of republicanism becomes epidemic, all men's *heads* are *turned* alike.

Within the period already specified, two important changes have taken place in the male attire, which may be mentioned with more respect, but in order to introduce these we must go a little farther back, and observe that about fifty years ago, all dress approached very nearly to what is now called full dress, and worn only at court or on special occasions. Every man, *i. e.* every gentleman, wore a sword, and his coat, waistcoat, and hat were adorned with gold lace, generally very deep and costly. The *make* or form of the suit, also, resembled the modern court, or full dress. In throwing off this apparel, which from the fluctuations of fashions became expensive, and probably was always felt as cumbersome, the sword was first laid

aside, and had nearly disappeared about the beginning of the present reign. This was followed by the disuse of gold-lace, first omitted from the coat, but retained a much longer time on the waistcoat, of which a few examples may still be seen among gentlemen of the old school. This however was also discontinued, and with it waistcoats of broad cloth, or full suits, yielded to lighter materials, especially during the summer. At length, about twenty four or five years ago, no gold lace was to be seen, except a gold button and loop to the hat, which was then cocked with great formality, but even at that time, the gold button and loop were accounted puppyish, and soon disappeared. About eighteen or twenty years back, the round hat began to appear, and soon established itself almost without a rival, the clergy* only standing out for some time, but they have now pretty generally gone into the fashion, except when in full canonicals.

While we were thus departing step by step from the old court dress, the two important changes to which we have alluded took place, viz. the disuse of ruffles and of buckles. It is almost needless to say that these articles are now never worn unless with full dress, and it appears a little singular, that so important a diminution of the profits of two considerable manufactories should have taken place, with scarcely a murmur on the part of those concerned. With respect to the one, indeed, it is said, they were silent from shame. The buckle-makers introduced changes of fashion so rapidly, that few fortunes were able to follow the succession of round and square, large and small, and people of fortune began to think they could employ £200 or £300 a year to better purpose than upon an article which in a few days they were obliged to give as perquisites to their servants, or sell for a trifle totally disproportioned to the original cost.—What the dealers in cambric had done to bring down the horrors of non-consumption on their heads, we know not, and are rather inclined to rank this change among the few instances of public economy which distinguish the present age.

With respect to the dress of a modern beau, one of the present year, nothing can perhaps be conceived more devoid of taste, we had almost said of decency: if it be considered as picturesque, it must be considered as an ugly medium between the man and the monkey. But perhaps the dress of beaux of all ages is alike extravagant, and as it is unnecessary for us to describe that of Bond-street, which seems to be the mart, we shall contrast it, for the amusement of our readers, with that of a beau of the year 1730, as given, in the form of directions, by a writer of that time, but evidently taken from the living model.

"Bring the young man," says this writer, "forth into the world, drest in a smart toupee, with a tail of the length and thickness of a kitchen poker: put more powder on his shoulders than the weight of his brains; stick a sword by his side, of the exact bigness of a lark-spit, with the handle tucked up close under his left arm-pit, and a gaudy sword-knot dangling from it. Let him have a hat a little bigger than a skimming dish, edged with a broad scollop lace of silver; and a cane with a head of gold, enchased, a span deep at least. As for his cloaths, they may be laced or embroidered, according to the tailor's fancy. The clocks of his stockings must be of gold or silver, it is not much matter which, provided they almost reach his gartering. His shoe-buckles must be of silver, wrought, and of the size which are usually put to coach-harness: and he must have another pair a little less, for the buckling of his knee-strings. To these must be added a snuff-box, with some Italian fancy on the lid: and a patch to be placed on any part of the face where it may appear with most affectation."

It is evident, that in the modern beau, we miss every article of the above inventory, and must supply their place with a meagre account of articles greatly inferior in value. The modern boot will account for a considerable part, as it not only apologizes for shoes and buckles, but, since accomplishing its union with the pantaloon, has abolished that right ancient part of dress, the stockings.—Upon the whole, therefore, it will appear that the innovations in female dress have been, within the same time, fewer and far more graceful and attractive, than those of the other sex, an assertion which might, we think, be proved by many more instances than the hints of this speculation will allow us to bring.

There is one circumstance alluded to in the communication of our correspondent, (with which we began this paper) that merits some notice. He refers us to the law of the chaste and rigid Lycurgus, who prescribed to unmarried females a certain degree of nudity *ad captandum*. Times are, however, so much changed since the days of that legislator, that we cannot reasonably expect that the same experiment will lead to the same result. Habits and modes of thinking are greatly altered, and we question whether a single instance can be produced of modern nudity having led to marriage. We are much afraid that it has put into the minds of young men thoughts of a very different nature, and not of the most respectful kind. Still, if it be the object with any class of females to exhibit such charms as are calculated to end in matrimony, that kind of matrimony which is now too much in vogue, we would recommend them to exhibit, through the interstices of their dress, title-deeds of estates, scrip receipts, or dividend warrants. These are charms which seldom fail to inspire with the most eager wish for possession, as there are few who are not afflicted with that species of encumbrances which they are peculiarly calculated to remove. R. S.

NOTICES

Players are "the abstract and brief chronicles of the Times." The comedy of *John Bull* shews us how much the common people are *refined* by the example of their superiors in station. That elegant accomplishment *Swearing*, which was formerly the attribute of the *finished Gentleman*, though sometimes clumsily imitated by the *blackguard*, is now alike familiar to all. In the mouth of the *Peer* or the *Peasant*, the *Baronet* or the *Brazier*, it adds nervousness to diction, and forms the Pathos of the modern Drama!

* During the early part of the last century the full clerical dress was generally worn at all times in public, and within these few years the cassock might often be seen, but even that is now very rare. Those who wish to contemplate the revolutions of the clerical dress, among the higher orders of the church, ought to visit the gallery of Lambeth palace. But this subject will be considered more fully hereafter.

In addition to what our writer on *Manners* inserted in the last Number, a Correspondent wishes to make the following remarks:—"The now prevailing fashion of *Gentlemen* in the service of the English Nobility and Gentry was probable of Italian Origin: For although no account of this part of Italian Manners was ever, in our knowledge at least, communicated to the public, it is a fact well known to all Italians, that the most eminent Prelates of the Court of Rome, as well as the most distinguished of the Neapolitan Nobility, even towards the beginning of the last Century, constantly had in their Antichambers two or three Pages, chosen from the higher Gentry, and the inferior Nobility; and to these Pages the Title of *Gentlemen* was given. It is a received opinion in the kingdom of Naples, that the famous Decree of the Grand *Master of Malta*, towards the close of the 17th Century, which was purposely issued to exclude from that *Order* all such Noblemen as officiated in the above capacity of *Gentlemen*, originated from the overbearing Insolence of *The Duke of Andria*, a Neapolitan Nobleman, of the illustrious family of *Carafa*. The Duke happening to be at one of his Villas, with two *Knights of Malta* in the capacity of Pages, was visited by a Commander of the Order; who on being invited to dinner with the Duke, had the mortification, whilst at table, to see himself and the Ducal family attended by these Knights. On his return to *Malta*, he related the event to the higher officers of the Order, and occasioned the above-mentioned Decree. It is also well known at *Naples*, that the Roman Cardinals, during the former half of the 18th Century, had always their Pages and *Gentlemen*, from the families of Marquises, Counts, and other titled Persons of the inferior Nobility of the Roman Territory. Even so late as the years 1775 and 1777, the *Cardinal Orsini*, *Duke of Gravina*, and the *Cardinal Branciforti*, Bishop of *Girgenti*, had two *Knights of Malta* in their Antichamber, who attended in the capacity of *Gentlemen*." NAPOLE.

Another Correspondent has furnished us with the following remark on the same subject:—

That the dignity of my Lord's *Gentlemen* is not the offspring of the present day appears from the following anecdote, the circumstance of which *certainly* occurred half a century ago. Sir Francis Dashwood, afterwards Lord Le Despencer, was setting out on a journey on horseback with only his servant *out of livery* to attend him, when the latter, seeing a portmanteau on his horse, declared he could not ride with it behind him; on which Sir Francis very coolly said, "if *you* cannot, I can, and immediately mounted the servant's horse and proceeded on his way, notwithstanding all the remonstrances of the man who of course was now ashamed of his folly. It is needless to add, that the person who would thus check the insolence of a servant in one instance would not give him the opportunity of repeating it in another.

POLITICS.

MR. EDITOR,

I HAVE long observed it to be a part of the nature of Englishmen, for which I have honoured them, to espouse the cause of a man who seemed to be ill used. It is, perhaps, from an affectation of the same laudable disposition that I have been moved to try what could be said in favour of Mr. Addington, who has submitted to more abuse, of the lowest and most illiberal kind, than it has been fashionable of late to think perfectly proper to use with regard to men in high situations. The time is not far distant, when those men, who are at present the most active and eager to degrade and vilify the first minister of the crown, would have raised a precious rout, on the use of similar language and actions by their antagonists. They would have branded them as republicans and jacobins. They would have accused them of a design to overturn the constitution of the state. They would have exclaimed against them as desiring to stir up to insurrection the lower orders, by destroying the reverence for the higher. They would have accused them of degrading and vilifying the sovereign himself, by attempting to disgrace the object of his choice for the highest trust which he has it in his power to commit, by thus presuming to condemn his sacred majesty in the most important action, perhaps, which belongs to him to perform. They would, in consequence, have called upon the Attorney-General to prosecute such friends of the French. No, I forget; that was not necessary at the time of which I am speaking. A simpler process served then. No Habeas Corpus stood in the way. The cry would have been,—to prison with them, to prison!

All the accusations against Mr. Addington which I have ever heard, may be nearly summed up under one title, want of capacity. There is, indeed, one person, the author of a weekly, political pamphlet, who has several times brought forward another accusation, which cannot be referred to that head; the accusation, I mean, is that of low birth. I am not surprized that this individual should be left solitary in such a charge; it is consonant to the opinion which I had formed of the wisdom and liberality of the British mind. But it is a matter of some surprize that a man who pretends to instruct the public should advance a fact to injure another whom he dislikes, which it was so easy to foresee must expose himself to the pity and contempt of all his fellow citizens. It is singular too that any person, who remarks upon the English history, should not recollect that by far the greater part of our ministers have risen from the middling rank of society, and often from the under rather than the upper part of that rank; that he should not remember that the members of the learned professions have always been accounted to belong to the middling rank, and to the upper rather than to the lower part of that rank. It is wonderful that he should not reflect, that some of the men who have most adorned the high offices of the state have been from almost the very lowest order of society. It is sufficient here to mention one of the most distinguished names, either for talents, virtues, or public services, which appear on the page of our history, that of Lord Somers. May we not mention here, too, the name of another individual, to whom his country is more indebted, perhaps, than to any other whom it ever produced, though he was more distinguished in other respects than as a statesman, Mr. Addison, who was Secretary of State under George the First? Why does not this writer, who thinks high birth so indispensable a title to high employments, complain of several of the arrangements under Mr. Pitt's administration? Why was the management of the treasury so long committed to George Rose? Why was Mr. Canning taken into the intimate confidence of the Minister? Why was Mr. Addington himself raised to the station of first commoner in the kingdom, the duties of

which he discharged not with the approbation only, but the admiration of all his countrymen?

Why does not this person abuse too several of the naval and military appointments in the late war? Why was Lord Nelson permitted to disgrace the British name by conquering the French at the mouth of the Nile? Why was not the son of my lord Marquis of Buckingham sent upon this expedition, and to force the entrance of the Baltic, who being backed by a long line of ancestors, and a noble troop of great connections, would have so much more *highly* adorned his country on these great occasions? What a wretched policy to send the son of a poor Scotch laird, of hardly £500 a year, to exalt the character of his nation on the plains of Egypt, instead of the noble offspring of some great family, so much better, in every respect, entitled to the employment!

But, waving this accusation of Mr. Addington, which will never hurt him in the minds of Englishmen, if he deserve their confidence in other respects, let me proceed to the more serious charge against him, that of incapacity.

Observe, Sir, in the first place, a slight inconsistency between the one charge and the other. If a man, from an inferior situation of life, raise himself to the highest, without the imputation of any dishonourable arts, he gives one of the strongest proofs of capacity.

Those persons who have made so certain a discovery of the incapacity of Mr. Addington, must have made a discovery at the same time that no capacity is necessary to be Speaker of the House of Commons. This is a discovery for which the nation is obliged to them; and I hope a bill will soon be brought into parliament to diminish very much the salary attached to that office, since it is now found out that any person is fit for it.

When you ask for the proofs of the incapacity of Mr. Addington from his enemies, what you receive is an invective on the terms of the peace. This is the only part of his administration which they presume to condemn; this of course is the only circumstance from which they are entitled to infer his want of capacity. But as far as I am acquainted with my fellow-subjects, not many of them will be found to agree with these men in regarding the peace as an evil to this country; they seem rather to unite in thinking it one of the greatest blessings; that Mr. Addington, by necessary consequence, shewed wisdom, instead of folly, in procuring it to his country; that such as it was, it was greatly desirable; and that it was not owing to Mr. Addington, but to the circumstances in which he was placed, that it was not better.

The men who abuse Mr. Addington were wont to proclaim that peace on no terms ought to be made with republican France. Why they have changed the question from *no terms, to some terms*, they have never yet explained. It is apparent however that such persons are not likely to be easily pleased with terms. They have however ceased the cry that peace with France is the adoption of jacobinism, because they find that it has ceased to make any impression; they only now assert that by the terms of the peace we have laid ourselves at the mercy of France, and that we ought to have continued the war till we got better terms.

Let us state a few facts in illustration of these assertions. At the time when the negociations commenced the French were in complete and undisputed possession of the left bank of the Rhine, and their victorious armies covered Switzerland, and the whole of the north of Italy. Had the war continued therefore, whatever resources these possessions afforded for carrying it on, the French enjoyed. What more did the peace give to France? Malta, and the Cape of Good Hope, say its enemies. Their conclusion is admirable: with Malta and the Cape, say they, we were not only a match for the French, but might entertain good hopes, by continuing the war, of beating them; give to them Malta and the Cape, and then we are totally at the mercy of France, and she may conquer us whenever she chuses to take so much trouble! What profound and uncommon insight these gentlemen must have into the nature of Malta and the Cape! The opinion of an ordinary thinker would be, that if Great-Britain was able, according to these politicians, to beat France when she had Malta and the Cape, she is not in any extraordinary danger from France now; and if she is not in any extraordinary danger from France now, why then the peace was a good one. The difficulty of this argument is insurmountable: either Great-Britain was unable to continue the war with France, aggrandized as she then was; or, if Great-Britain was able, then is she in no state to be afraid of France now.

During the war, say the accusers of the peace, we engrossed all the trade of Europe; now France may shut us out from all the trade of Europe, and she will ruin us. What profound acquaintance with the nature of commerce, and with the situation of Europe, does this objection display! And what a misfortune to this country that her business is not in the hands of persons of such exalted wisdom! France is unable to shut out our commerce from her own ports, as she finds by experience! And can she shut it out from the rest of Europe? It is our own fault that we do not send to France, in spite of her, a much greater share of our commerce than we do. But by laying such heavy duties upon the importation of French goods, our merchants are obliged to come back without a cargo, and thus trade at a great disadvantage. Does France shut us out of Holland, out of the Baltic, out of the Mediterranean, out of the Adriatic? Is the Emperor of Russia, as a compliment to Bonaparte, likely to refuse the money carried into his dominions by the British Merchants? Is it probable that the King of Prussia will give up, as a trifle, the immense benefits derived by his states from the trade of Dantzic, Elbing, and Koningsberg, almost exclusively carried on by the British? Is there any danger that the Emperor of Germany will be so obliging to the French as to say to the British merchants—keep out of my harbours, and approach no more with those noble means of the improvement of my dominions? One fact is, that Great Britain has *exported*, in the year of peace, in a very large proportion above any preceding year. And another fact is, that the influence of France on

the continent of Europe has sunk most materially since the cessation of hostilities, and that of Great-Britain risen! I know that in this last assertion I am correct; and that there is not a man capable of estimating the temper of nations, and acquainted with the continent of Europe, who will not assent to it.

"But St. Domingo—and Louisiana—what formidable things are they?" Truly so they are; but to France, not to Great-Britain! France is a country languishing in poverty. Whatever means can yet be picked up in it, are not to be employed in improving itself, but sent to a distant colony, the mother-country still remaining in poverty and weakness. The anxiety shewn by the French government about distant possessions, while they have such an extent of unimproved possessions at home, proves them completely to be of that tribe of vulgar politicians, of which we have so many ourselves, that we cannot be surprized to find France stocked with them. If France resolve to make herself too strong for us in the West-Indies, she will give us admirable compensation, by not growing too strong at home.

"But do not the present alarms prove the peace to have been abominable?" Far from it! Such was the nature of the preceding war, such was the state of mind in which it left the inhabitants of Europe, such in particular was the state of mind in which it left the inhabitants of France and of Great-Britain, that a state of uncertainty, of alarms, was to be looked for, in spite of any terms of peace that could be devised. No peace could have prevented such a state! The wonder to all reflecting men is that the minds of the people of France and of Great-Britain should be composed to the degree in which they are, not that some marks of the old agitation should yet remain. The wonder too is, not that some subjects of altercation should be found in fulfilling the terms of such a peace, as that negociated by Mr. Addington and his colleagues, but that it was possible to make a convention, which should give us so fair a prospect of recovering the blessings of peace and good neighbourhood, as that which they made. Who ever negociated a peace in such difficult circumstances, as that of which we treat? Is not this to be taken into the account in talking of the merit of those who procured it? When was Europe in the disjointed and chaotic state in which the last war left it? When had any Minister a power to treat with of the nature of Republican France? When had the arms of any power acquired such an ascendancy over those of the other states of Europe? It was a new and untried scene upon which Mr. Addington and his colleagues had to enter; it was a situation of affairs without a parallel in the history of nations; and the peace which they procured is a blessing, for which they deserve the gratitude of their fellow-citizens, a reward which just posterity will not fail to pay them.

I have one observation more which I must address to the proclaimers of Mr. Addington's incapacity. Their excessive exaggerations of that incapacity draw after them one consequence, of which they do not seem to be aware. They imply a most serious accusation against the king! If Mr. Addington's incapacity be so visible, what a picture do they present of the understanding of his majesty, if he is incapable of seeing that excessive incapacity? and what a picture do they present to their fellow-subjects of the intentions of their sovereign, if he sees the incapacity of so important a servant, and yet continues to employ him? Another thing these condemners of Mr. Addington would do well to consider. Mr. Addington has received the support of two successive parliaments. If he be so utterly unqualified for his situation, what are we to think of those parliaments? what are we to think of parliament in general? It is clear to a demonstration, that it must be rotten and corrupted to a degree that it is good for nothing! I leave it for them to chuse whether they will adhere to this conclusion, or retract their former opinion.

Your's, &c.

A True Briton.

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4. *On the Situation and Soil of Ireland.*

Mr. Editor,

Whoever will duly consider the geographical situation of Ireland; the number and safety of its harbours and bays; the boldness of its shores; and the happy temperature of its climate; will, no doubt, be disposed to admit, that these circumstances, aggregately taken, render it infinitely more commodious for foreign commerce than any other country in Europe: nay, that it seems thus designated by nature to be the grand emporium of the merchandise of both worlds. It may be said to lie open to the four quarters of the globe. It presents, in a circuit of only 750 miles, no fewer than *sixty-six* safe harbours, besides twenty-six places where ships may take refuge in a storm. (A) Its coasts may, for the greater part, be approached without danger in the most tempestuous weather. And its seas are navigable throughout the year.

Nor is Ireland less advantageously circumstanced for domestic, than for foreign traffic. Its harbours lie within a few hours sail of each other. It is every where intersected by noble rivers, already navigable in part, and, with few exceptions, capable of being rendered wholly so at an inconsiderable expence. Canals may be cut through it in almost all directions, without exhausting, as in other countries, that supply of water which is requisite for many other important purposes. Its surface is, in many places, peculiarly well adapted to rail-ways. It abounds in the choicest materials for the formation of smooth, hard, and durable roads. (B) Its high-roads are actually good. Its bye-roads the finest perhaps in the world. (C) In short, it is impossible that any country can be better furnished with the means of facilitating the transportation of merchandize. (D)

As for the two chief agents in carrying on manufactures in general, viz. water and fuel, the former,

(A) See Mr. M'Kenzie's charts of the coast of Ireland.

(B) For a full display of the advantages of good roads, navigable rivers and canals, the reader is referred to Doctor Adam Smith's Inquiry into the nature and causes of the wealth of nations, Vol. I, p. 151, and Vol. II, p. 24.

(C) See Mr. Young's Tour, Vol. II, Part II, p. 57.

(D) Ireland, consisting, according to Sir William Petty, of above 18,000 square miles, and being 750 miles about, is not, one place with another, above 24 miles from the sea.—Political Anatomy of Ireland, p. 353.

in copious and limpid streams is every where to be found; and the latter, according to the opinions of several persons conversant in collieries, may be drawn in sufficient quantities from the bowels, where it happens to be deficient on the surface of the earth: in some places, and these contiguous to water-carriage, it may be extracted in the greatest abundance. (E)

The climate of Ireland has been found remarkably favourable to bleaching. Flint and clays of a superior quality have been discovered in several parts of that country. And, by some of those political writers whose opinions were generally embraced in the reign of William III. it was considered, in various respects, as somewhat more happily circumstanced, even than England for the woollen manufacture.

Thus then are we authorized to affirm, that Ireland displays a singularly fortunate combination of all the principal requisites for external and internal trade; enjoying, at the same time, the means of carrying to perfection the linen, the cotton, the pottery and the woollen manufactures. These, however, are not the only physical advantages of that country. In point of general fertility of soil it is surpassed by very few countries in Europe.

Sir William Petty, in his Political Anatomy, written in the year 1672, computed, that the lakes, rivers, highways, impassable bogs, rocks and shrubs of Ireland, took up about ..... 1,500,000 acres.
The coarse land commonly called unprofitable, though not altogether such .. 1,500,000 acres.
And the good meadow, arable and pasture ..... 7,500,000 acres.

Making altogether 10,500,000 acres. (F)

Mr. Gregory King, about two years anterior to the commencement of the last century computed that the heaths, mountains, moors, barren land, rivers, lakes, roads, and waste lands of England and Wales took up about ..... 11,000,000 acres.
The commons, woods, forests and parks 6,000,000 acres.
The houses, gardens, church-yards, &c. 1,000,000 acres.
And the arable, pasture and meadow.... 21,000,000 acres.

Making altogether 39,000,000 acres (G)

From hence it appears, that towards the close of the seventeenth century, when England had made considerable progress in agricultural improvements, and when Ireland was but just emerging from a state of nature, the former contained little more than twenty-five millions of acres of what might be denominated productive land out of thirty-nine millions; while the latter contained seven millions and a half, out of ten millions and a half: a proportion which leaves no room to doubt of the superiority of Ireland over England, in point of general fertility of soil. (H) The exigencies however of a rapidly increasing population; the peculiar mode in which the agricultural labourers of Ireland have always hitherto been paid, and which, as shall be noticed more fully on a future occasion, has proved instrumental to the increase of its inhabitants; the prevailing avidity for land amongst the lower orders in that country, in consequence of the paucity of its manufactures; together with a progressive and almost unprecedented rise in the rents of all cultivated grounds, have powerfully contributed to improve the situation of Ireland with regard to general fertility of soil; much more so, I am inclined to suspect, than similar exigencies and equivalent incitements have tended to improve that of England. Nearly one half of the bogs mentioned by Sir William Petty are at present rich meadow and pasture land: indeed, as Mr. Young remarks, "there is not now more bog in Ireland than is requisite for fuel." The woods, which were very extensive in the seventeenth century, have been totally eradicated. The greater part of the coarse unprofitable land has been cleared of furze, brambles and bushes, and is actually under corn and potatoes. Cultivation has been carried up the sides of the mountains; nay, to very tops of some of them. There are very few commons in Ireland; and, with the exception of that rich and beautiful one, the Curragh of Kildare, not one of sufficient extent to arrest the traveller's attention. In short, it may be confidently affirmed, that not much more than *one-sixth* part of Ireland is, at this day, in an unproductive or neglected state: which certainly is much less than England, or I believe, any other country in Europe can boast of. And of this sixth part, I am persuaded, that more than the half might with considerable profit be reclaimed. "Sand," as Mr. Young remarks, "which is so common in England, and yet more so in other countries, is no where to be met with in Ireland except in narrow slips, contiguous to the sea shore,(I) nor is there in that country a single acre of chalky soil." The same gentleman asserts, "that the cultivation of waste and unprofitable lands (such, for the most part, as mountains and bogs) would yield a profit of from fifteen to twenty per cent. *besides other advantages.*" The bog of Allen, for instance, which is infinitely the most extensive one remaining in Ireland, and is supposed to contain 300,000 acres, might partially, if not wholly, be transmuted into the richest meadow and pasture land,(J) and made to yield rape, turnips, and potatoes of a superior quality. (K) The locks of the grand canal, which passes through it, indicate a sufficient descent for draining; and the excavation of that canal has displayed a stratum of that incomparable manure, limestone-gravel, at the distance of from ten to fourteen

(E) It appeared by the evidence of Mr. Evans, an engineer of great character, given before the Irish House of Commons in 1783, that the collieries in the county of Kilkenny and those in the Queen's county would, if properly worked, produce yearly 300,000 tons of coal; which might be carried by the canal and sold at the distance of 40 miles, at 1s. 6d. a barrel, weighing four hundred; and also that at Lough Allen there were collieries equal to the supply of the whole island if properly worked.

(F) Page 300. By subsequent surveys it appears, that, exclusive of Lough Neagh, Ireland contains upwards of eleven millions of Irish or near nineteen millions of English acres.

(G) Davenant, Vol. II, p. 216.

(H) "Natural fertility," says Mr. Young, "acre for acre over the two kingdoms, is certainly in favour of Ireland," Tour, Vol. II, part II, p. 3. Since Mr. Young visited Ireland, vast tracts of coarse land have been reclaimed.

(I) Tour, Vol. II, Part II, p. 4.

(J) "Certain it is," says Mr. Young, "that no meadows are equal to those gained by improving a bog; they are of a value which scarcely any other lands rise to." Tour, Vol. II, Part II, p. 74.

(K) Potatoes produced from a bog, require but four months vegetation until they are fit for the table.

feet from the surface, which if spread thereon, would, as has often been experimentally proved, produce, without the aid of a sower, an entire covering of white-clover and trefoil. All the mountains that I have examined afford good pasturage for cattle. Grass is to be found on the very summits of the most lofty in Ireland. And, to borrow the words of Mr. Young, "Some of the mountains in the county of Antrim (to which he might have added others) consist entirely of exceeding good loam, and such as would improve into good meadow:"(L) an opinion which I know to be actually verified in several places. And still further to use that gentleman's words, "The rocks of Ireland are clothed with verdure; those of limestone with only a thin covering of mold have the softest and most beautiful turf imaginable." Thus much for the bogs, mountains, and rocks, or apparently unprofitable land of Ireland, which yet, contrary I apprehend to the opinions of most Englishmen, do not comprise one-sixth part of that country. As to the profitable land, nearly one half of it cannot possibly be surpassed in natural fertility. In some places the soil is absolutely inexhaustible. I have, not unfrequently, seen two excellent crops of potatoes, two of wheat, and one of oats, taken off in succession without manure. The bullock-pastures of Munster and the sheep-walks, particularly of Connaught, are luxuriant beyond description. The remainder of the profitable land may, at an inconsiderable expence, be perpetually kept in the highest state of fecundity; as the interior part of the country is almost every where abundantly supplied with lime-stone, (M) which, in this country, I have known to be carried from ten to twenty miles; also with limestone-gravel; (N) and, in several places, with marl, rotten lime-stone, and other natural manures. The sea-shores furnish, in vast quantities, different species of oar-weed, sand and marine shells, which are found to be excellent manures for potatoes, wheat, barley, and oats. And, in almost every extensive farm in Ireland there is a sufficient command of water for the purpose of irrigation; which is peculiarly suitable to the general nature of the Irish soil.

The soil of Ireland moreover possesses, for the most part, a surprising natural principle of recovery: for after having been completely exhausted, and apparently sterilized by a ruinous succession of grain-crops without manure, it will, if undisturbed, in less than two years, spontaneously produce trefoil, vetches, white-clover and other grasses fit for sheep; and the third year at farthest, tempt its ungrateful occupier to renew his depredations. The crops it yields, under the extremely defective mode of tillage that prevails, are however nearly equal in quantity to those of England: (O) they would exceed them one-fourth at least were the Irish farmers to adopt the skilful mode of their English neighbours.

But there cannot be a more substantial proof of the general fertility of the soil of Ireland than the vast annual exportation of corn and provisions from that country; the population whereof appears to be more dense than that of any other country in Europe, except Holland. According to Mr. Irving's return to the House of Lords, the exportation of corn and provisions from Ireland *to England alone* on an average of three years to 1799 was as follows, *viz.*

Barley..	£17,579	Beef...	£388,522	Corn.....	248,564
Oats....	205,391	Pork..	674,981	Provisions	1,954,213
Oatmeal	24,884	Bacon.	106,656		
Flour...	5,710	Butter.	781,054	Total	£2,197,777
	£253,564		£1,954,213		

In that period, however, there were three circumstances which greatly conduced to diminish the usual exportation of corn and provisions, viz. a wanton destruction of cattle by the Rebels, and also by the King's troops, when living at free quarters; a bad harvest; and a vast army, whereof I believe near fifty thousand were strangers. In 1793, there were exported, as appears by the Custom-house books, 730,065 barrels of wheat and oats. I think therefore, without descending further into the detail of the business, it may, upon the whole, be safely affirmed that Ireland, under all its agricultural disadvantages and deficiences, (P) is actually competent to export upwards of three millions worth of corn and provisions: a fact which, if others were wanting, would alone be sufficient to establish the great superiority of its soil over that of England, in general fertility; it having been found necessary, according to Sir John Sinclair, (as was before noticed) to import into the latter, the population of which is certainly less dense than that of the former, upwards of twenty millions worth of corn in the last ten years.

An additional, but, it must be owned, an indirect and equivocal proof of the natural fertility of the soil of Ireland, might be furnished by the great and rapid increase of the rental of that country. In 1672, Sir William Petty stated the general rental of Ireland at £900,000. (Q) In 1727, Mr. Browne stated it at £2,025,000; and added, "that it was then generally thought the lands were let too high." (R) In 1777, Mr. Young stated it at £5,293,312 being 9s.7d. per acre, but added "that if the real rent of the kingdom could be ascertained, it would probably be found rather to exceed, than fall short of six millions." (S) I may now fairly estimate it at twelve millions; as the rents have, to my knowledge, more than doubled in several places in the four provinces since 1777: between which and the year 1757, they

(L) Tour, Vol. I, p. 210.

(M) "Inexhaustible quarries of the finest limestone," says Mr. Young, "are found in most parts of Ireland." Tour, Vol. II, Part II, p. 67.

(N) "Limestone-gravel is a manure peculiar to Ireland, and is most excellent." Same, p. 68.

(O) Produce of an acre in Ireland.

	Q.	B.	P.
Wheat	2	2	3
Barley	3	4	3
Oats..	3	4	3

Produce of an acre in the eastern parts of England.

	Q.	B.	P.
Wheat	3	0	0
Barley	4	0	0
Oats..	4	6	0

"To the extreme bad management of the Irish farmers," says Mr. Young, "it is owing, that Ireland, with a soil, acre for acre, *much better* than England, has its products inferior." Tour, Vol. II, Part II, p. 15.

(P) The writer of these lines has seen four times more clover and other artificial grasses in a circuit of eight miles in the isle of Anglesea, than in a circuit of more than one hundred in Ireland.

(Q) Political Anatomy, p. 378.

(R) Essay on Trade in general, and on that of Ireland in particular, p. 37.

(S) Tour, Vol. II, Part II. p. 11.

appear, by the information collected by Mr. Young, to have in general risen in a similar ratio. (r)*

Besides its extremely fertile soil, Ireland has still other natural sources of wealth. Its fisheries, its mines, and even its fossils, if large capitals were skilfully employed thereon, might be rendered productive of incalculable riches. With respect to the first, I think it unnecessary to add to Mr. Young's words. "There is," says that gentleman," "scarce a part of Ireland but what is well situated for some fishery of consequence; her coasts and innumerable creeks and rivers' mouths are the resorts of vast shoals of herrings, cod, hake, mackerel, &c. which might, with proper attention, be converted into funds of wealth. (s) As to the second, it may suffice to say, that, in different parts of Ireland, copper, lead and silver mines have been discovered, and in one district small quantities of gold; that iron-stone and ore may be found, in many places, in great abundance; and that exterior appearances authorise a belief that various sorts of valuable mines still remain to be disclosed. With regard to the third, I shall only observe, that in addition to the useful clays and flint-stones before noticed, a great variety of beautiful marbles, also crystals, amethysts equal to those brought from Portugal, and various other valuable stones have been found in considerable quantities.

In short, as the experienced and sagacious Sir William Temple remarks, "the native fertility of the soil and seas, in so many rich commodities, with the advantage of so many excellent havens, and a situation so commodious for all sorts of foreign trade, might render this Kingdom (Ireland) the richest in the world." (t)

VIATOR.

(r) Same, p. 182.

* The reader will find a satisfactory explanation of the cause of this great rise in the rental of Ireland, in Doctor Adam Smith's Inquiry into the nature and causes of the wealth of nations. Vol. I. p. 164.

(s) Tour, Vol. II, Part II, p. 186.

(t) Of the advancement of trade in Ireland, Vol. III, p. 8.

Mr. *M'Arthur* is gone to press with a fourth edition of his *Financial* and *Political Facts:* The profits have been generously given to the support of the *Literary Fund.* The merits of the work are unquestionable, from the reception it has met with. It has also been translated into French.

France.—A society of printers and booksellers of Milan have formed the design of publishing a new edition of the Moniteur from the 5th of May, 1789, the day of the opening of the States General, conformably to the original edition, suppressing all advertisements, &c. We regard this as a useful undertaking. The Moniteur, in its progress, is a curious document of the progress, and successive temper of the revolution of France; and to the truly philosophical historian is a mine of considerable richness; though it must be confessed the expence of working must be not small. The first 20 volumes, in 8vo. are printed and ready for delivery, and every ten days a volume appears, of 320 pages each.

A history of the laws concerning marriage and divorce, by M. Nougarede, has appeared at Paris. He has chosen the historical form to represent the arguments in favour of his own ideas of those important transactions. He has confined himself to the history of two people, the Romans and the French. To the strictness of the laws of Rome respecting the union of the sexes, he ascribes chiefly the superiority of the Romans over their cotemporaries. When the neglect of these laws, aided by other instances of dissolution, had enfeebled the state, it was re-animated by a new legislator, who established the maxims of a divine religion. It was the same religion which dictated to Charlemaigne the laws of the conjugal connection, which have contributed, in so great a degree, to form the moral character of the inhabitants of modern Europe. These laws have been subverted by the passions of Frenchmen, which have lately torn down whatever stood in the way of their gratification. The difficulty of re-establishing these precious institutions, Mr. N. thinks, has been infinitely exaggerated. And he advances some very fine criticisms on the laws proposed in the Projet de Code Civil, which he thinks retain too many traces of the principles of that morality in fashion toward the end of the last century.

ERRATA.

In No. 12—In the Account of the Population of Sweden, p. 393, line 13, for 506,915, *read* 50,915—and for 547,573, *read* 54,773—these typographical errata were made in the original.

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NUMBER 15.] THURSDAY, APRIL 14, 1803.

PHYSICS.

1. *Biographical Account of* Daubenton.

LOUIS Jean Marie Daubenton, who acquired so brilliant a reputation as a naturalist, was born at Montbar in the department of the Côte d'Or, in France, on the 29th May 1716. His father, Jean Daubenton, was a notary in that place, and his mother's name was Marie Pichenot. In his youth he distinguished himself by the sweetness of his temper, and by his diligent application to his studies. The Jesuits of Dijon, under whose tuition he was first placed, noticed him in a peculiar manner. Having gone through a course of what was called *philosophy*, under the Dominicans of Dijon, his father, who destined him for the church, and who had made him assume the ecclesiastical dress at the age of twelve, sent him to Paris to study theology. But his predilection for natural history induced him privately to study medicine. Accordingly he attended the lectures of Baron, Martinenq, and Col de Villars, and likewise those of Winslow, Hunault, and Antoine de Jussieu in the botanic garden. The death of his father in 1736 enabled him to follow his inclination without constraint. Accordingly he took a degree at Rheims in 1741, and returned to his own country with the intention of following the practice of medicine. But fortune destined him for a more brilliant career.

Montbar had given birth about the same time to another man of a very different character, who, though possessed of an independent fortune, a robust constitution, and actuated by a violent passion for pleasure, had determined notwithstanding to devote himself to the cultivation of the sciences. This man was Buffon. Hesitating for some time what branch of physics he should make his peculiar study, he tried by turns geometry, mechanical philosophy, and agriculture. At last his friend Dufoy, who during his short superintendance had rescued the botanic garden from that state of neglect in which former physicians had left it, and who had procured for Buffon the reversion of his office, dying, and leaving him his place, Buffon's choice was fixed on natural history, and he saw before him that immense field which he afterwards traversed with so much eclat.

Natural history was at that time little else than a dry catalogue of names, destitute of that methodical arrangement, of that precision, of those interesting details which have since distinguished it. It occupied a very low station among the sciences, and instead of being a fashionable study, was degraded into the drudge of medicine and surgery. Buffon formed the bold plan of giving life to this dry and apparently steril mass, of painting nature as she is, always young, always active; of pointing out the harmony of all her parts, and the laws by which they are combined into one system, and of giving his picture all the glow, all the freshness, all the charms of nature herself. But to secure success it was necessary to make truth the basis of his system. Every thing must be collected, revised and examined. The forms and dimensions of animals must be compared, and their internal structure ascertained. The ardent and impatient spirit of Buffon could ill brook a task so tedious and painful, and the imperfection of his sight rendered him unqualified for it. He looked about therefore for a man possessed of sufficient judgment, patience, and neatness of hand for his purpose, and at the same time modest enough to submit willingly to act a secondary part. He found such a man in Daubenton, the companion of his infancy.

The character of these two philosophers was almost opposite in every respect. Buffon was violent, impatient, rash; Daubenton was all gentleness, patience, and caution: Buffon wished to divine the truth rather than to discover it; Daubenton believed nothing which he had not himself seen and ascertained. Buffon suffered his imagination to lead him from nature; Daubenton, on the contrary, discarded from his writings every expression which was calculated to mislead. They were thus happily fitted to correct each other's faults. Accordingly the history of quadrupeds, which appeared while they laboured together, is the most exempt from error of any of the divisions which constitute Buffon's natural history.

Buffon drew Daubenton to Paris about 1742: procured for him the place of *demonstrator of the cabinet of natural history*, at first with a salary of only 500 francs, but which was gradually encreased to 2000. He furnished him likewise with a lodging, and neglected nothing to secure his comfort and convenience. Daubenton on his side devoted himself to second the views of his benefactor. The cabinet of natural history, which was arranged, and in a great measure collected by his means, was of immense service. In the history of quadrupeds, he gave the description and dissection of 182 species of quadrupeds. These details contained a vast number of new facts, and arranged in such a manner that the most curious results is often obtained merely by comparing them together. This work procured for Daubenton a very high reputation, and drew upon him the envy of Reaumur, who at that time considered himself as at the head of natural history. But the credit and reputation of Buffon was sufficient to prevent his friend from falling a victim to the attack of this formidable antagonist.

In the subsequent parts of his natural history Buffon was persuaded to separate himself from Daubenton. This injured the precision and value of these parts excessively: while it deprived Daubenton of 12,000 francs a year. Afterwards the intimacy between them revived, and continued till the death of Buffon.

The number of dissertations on natural history which Daubenton published in the Memoirs of the

French Academy, is so great, that even a list of them would be too long for this place. Descriptions of different animals, dissections, comparisons between the forms of different animals, anatomical examinations of fossil bones, to determine the animals to which they had belonged, the physiology of vegetables, and different parts of mineralogy, successively occupied him; not to mention his experiments on agriculture and rural economy, which, however, were of more service to him afterwards than all the rest of his labours, on account of the reputation among the populace which they had procured him.

In the year 1794, when the dregs of the people were masters of France, Daubenton, was under the necessity of applying to the section of *sans-culottes* for a certificate of civism, to enable him to retain his place in the garden of plants, which he had filled with honour for 52 years. A professor and academician would scarcely have obtained it; but it was readily granted to Shepherd Daubenton, under which title it had been fortunately presented. We shall translate it word for word as a curiosity for the gratification of our readers, omitting only the bad grammar and spelling, which cannot be translated.

SECTION OF THE SANS-CULOTTES.

Copy of the extract of the deliberations of the General Assembly of the Sittings of the fifth of the first decade of the 3d month of the 2d year of the French Republic one and indivisible.

It appears that after the report made to the fraternal society of the section of the *sans-culottes* concerning the good civism and acts of humanity which the Shepherd Daubenton has always testified, the General Assembly unanimously decree to give him a certificate of civism, and the president followed by several members of the said assembly give him the fraternal hug, with all the acclamations due to a true model of humanity which has been testified by several renewals of the hug.

(Signed) R. G. DARDEL, President.
(A true Copy.)
(Signed) DUMONT, Secretary.

Besides his publications, Daubenton was of great service to science as a lecturer. From 1775 he gave lectures on natural history in the College of Medicine. In 1783 he lectured on rural economy. He was appointed professor of mineralogy by the convention at the garden of plants, and he gave lectures during the ephemeral existence of the *Normal School*. He was likewise one of the editors of the Journal des Savans, and contributed to both the Encyclopedias. As a lecturer he was extremely popular, and what is uncommon, he retained his popularity to the last.

Notwithstanding the feebleness of his constitution, he arrived at a very advanced age without much disease or loss of his faculties. This may be in some measure ascribed to the gentleness of his temper, and his remarkable resignation. He was temperate and moderate even in his studies. Part of his time was spent in reading romances with his wife.

In the year 1799 he was appointed one of the members of the conservative senate, and he resolved to attend the meeting of it. This obliged him to alter his regimen. The season was severe. At the first meeting that he attended he fell from his seat in an apoplectic fit. The most speedy assistance was procured, and by its means he was restored to his senses. With the utmost calmness he pointed out with his fingers the progress of the paralysis in different parts of his body, and died on the first of January 1800 without a single struggle.

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2. *On the presence of Prussic Acid ready formed in different Plants.*

We are informed in the 56th volume of the Journal de Physique (p. 160) that M. Schrader, a chemist and apothecary at Berlin, has found prussic acid ready formed in the water of the laurus cerasus or bay laurel, in the infusion of peach leaves, in bitter almonds, and in different other plants. These infusions have the property of precipitating iron blue, and afford all the other characters of prussic acid. This discovery is of considerable importance. The resemblance between the odour of these plants, and that of prussic acid has been long known. We now see that the smell of the peach blossoms, and of bitter almonds is actually owing to the presence of prussic acid.

The discovery of Schrader has been more lately confirmed by the experiments of Vauquelin,* whose skill as a chemical analyst is known to all the world. He distilled a mixture of equal parts of pounded apricots and water in a sand bath, and stopt the process when most of the water had come over. The liquid obtained was colourless, its smell like that of bitter almonds and very strong; its taste intensely bitter. It did not redden the tincture of turnsol. A few drops of the solution of iron were added: the iron was precipitated by ammonia, the mixture agitated for some instants, and then diluted sulphuric acid was added. Part of the iron was dissolved, but a bluish green matter remained on which the acid had no action. This matter remained green though exposed for some days to the air, but it became blue by the action of boiling water. Alkalies deprived it of its colour and made it yellow, which proves that it was really prussiat of iron. The same results were obtained when a mixture of bitter almonds and water were distilled by the heat of a water bath. The first part of the liquid which came over in that case, contained almost the whole of the prussic acid. The whole product of the distillation had the property of giving a red colour to the tincture of turnsol.

Mr. Vauquelin supposes that the prussic acid is not in the same state in these plants, as in the blue prussiat of iron. Since it gives with iron a green precipitate instead of a blue. Berthollet has shewn, that common prussic acid acquires this property by the action of oxymuriatic acid, and of course by the absorption of oxygen. The prussic acid obtained from animal and vegetable bodies by the action of nitric acid is in the same state.

The small quantity of precipitate obtained by the action of iron on the watery products of the above-mentioned vegetable bodies, induces Mr. Vauquelin to suppose, that their bitter taste and peculiar smell is not owing solely to the prussic acid which they con-

* Ann. de Chimie, 45, 206.

tain; unless that acid be so modified in them as not to be in a proper state for precipitating iron.

Mr. Vauquelin found, that after the prussic acid had been separated from these vegetable bodies by a moderate heat, a stronger heat produced no more of it, but that the products thus obtained, contained much ammonia, and greatly resembled what is procured from animal matters by a similar process.

On mixing two parts of alcohol with one part of almonds, and distilling, the alcohol was obtained of an excessively bitter taste, but no traces of prussic acid could be detected in it. It can scarcely be doubted that prussic acid is contained also in the kernels of peaches, plumbs, cherries, &c.

3. *On the Sugar of Grapes. By* Proust.*

Mr. Proust has lately detected in grapes a new species of sugar, which is the basis of wine. It differs from the sugar obtained from the sugar cane in its mode of crystallizing, &c. The quantity of it contained in the muscatel grape amounts to thirty parts in the hundred. This eminent chemist has ascertained also, that during the fermentation of wine, azotic gas is always disengaged together with the carbonic acid gas: whereas in the fermentation of gluten (as in bread) the carbonic acid disengaged is always accompanied by hydrogen gas.

4. *On the changes which take place in the Atmosphere in the Temperate Zones.*

Mr. Lamark, who for some years past has devoted himself with much zeal to the study of Meteorology, has published a long paper on the subject in that number of the Journal de Physique which was published in February. He complains as usual of the little attention paid to the subject, and spends a considerable part of the paper in pointing out the absurdities and mistakes of other meteorologists, and in indulging himself in sneers at their expence. Our readers we hope will forgive us for passing over all these passages, and for satisfying ourselves with the following short statement, which contains every thing of any importance in Lamark's essay:—

1. The changes in the atmosphere in our climate are owing to two causes; namely, 1st, the influence of the sun; 2d, the influence of the winds. The first of these causes varies regularly with the season. Of course all the irregularity in the state of the atmosphere is owing to the second cause.

2. Every change in the wind produces also a change in the state of the atmosphere and aspect of the sky; because it produces a change in the temperature of the air. The reason of this is obvious. All winds of any duration must come from portions of the atmosphere either to the north or the south of our climate, and of course be colder or hotter than the mean temperature of our air.

3. When the atmosphere is in its natural state, the stratum of it which is nearest the earth is hottest, and every stratum diminishes in temperature at a certain rate, according to its distance from the earth.

4. When this natural state of the atmosphere is destroyed or reversed by any cause, the consequence is that the sky is overcast and rain falls.

5. When a north or north-east wind at Paris is accompanied with a clear sky and fine weather, it is *simple*, that is to say it occupies the whole of the atmosphere from the surface of the earth to the highest part that is concerned in the phenomena of meteorology. In that case the temperature of the air is lowered, and the barometer rises on account of the inferior density of the colder air.

6. When a north or north-east wind is accompanied with a cloudy sky or rain, it is not *simple*. It is confined to the inferior strata of the atmosphere; while, at a certain height, the wind blows in the contrary direction as from the south or south-west; as may be ascertained by the motion of the higher clouds. In that case the barometer sinks on account of the inferior density of the superior warm current of air. In this case the natural state of the atmosphere is inverted, the current from the south warming the higher regions of the atmosphere, while the current from the north cools its inferior regions much more than usual.

7. When a south-west wind occupies both the lower and superior regions of the atmosphere, or in other words, when it is *simple*, the sky is usually overcast, and rain at last falls.

8. When a south-west wind is confined to the lower regions of the atmosphere, while a north east wind blows in the superior regions, the sky remains clear and the weather fine, because the natural state of the atmosphere is maintained.

Such are the conclusions which Lamark draws from his observations. They are certainly curious, and if they hold at Paris it can scarcely be doubted that they will hold here also, as the distance between the two cities is not great, and their relative situations not very different. They deserve therefore the attention of our meteorologists, especially as, if they be verified they may throw considerable light on the causes of rain which at present are involved in so much obscurity.

5. *Of the Necessity of Water to the Calcination of Limestone.*

About a dozen years ago, Dr Priestley announced it as his opinion, that water is essential to the gaseous form of bodies, and that substances never assume that form unless when they are in contact with that liquid. He gave several very ingenious experiments in proof of his opinion, the most remarkable of which was the separation of carbonic acid from native carbonat of barytes, by passing the vapour of water over it while in a state of incandescence, after it had withstood the utmost violence of heat while dry, without decomposition. These opinions of Dr. Priestley were opposed at the time by Berthollet with great warmth, chiefly because they were brought forward in opposition to the Lavoisierian theory of combustion and its consequences, which were then the subjects of discussion. But that sagacious chemist has lately adopted the very opinion which he at that time opposed, and has defended it with his usual acuteness in his recent dissertations on charcoal and its combinations.

That the presence of water facilitates the decompo-

* Journal de Physique, 56, 113.

sition of the earthy carbonats is a fact which must have been observed by every chemist, and has been long known to those who are habitually engaged in burning limestone. Lord Stanhope employs for his lime-kiln charred pit-coal or cinders drenched in water, and the quantity of fuel which he uses is much smaller than what is necessary in common cases. This, no doubt, is partly owing to the excellent structure of his furnace; but partly also to the presence of the water with which the cinders are soaked.

Mr. Pictet has lately made a set of experiments on this subject. He attempted to calcine chalk in close vessels, with, and without water, and the difference with respect to the facility of the separation of the carbonic acid he observed to be enormous. The production of this acid gas always ceased in the apparatus, notwithstanding the heat, when the whole water of aggregation had separated, and made its appearance again in torrents, whenever the vapour of water was made to pass over the surface of the chalk.

We had occasion lately to verify these experiments. We happened to be analysing two specimens of lime-stone, one of which contained a considerable proportion of water, the other none at all. On making the experiment we found that the carbonic acid gas was much sooner separated from the first species, than from the second, in the same fire and in the same circumstances.

Those persons who have occasion to calcine limestone for the different purposes of the arts and agriculture will do well to attend to this important distinction.

6. *On Albumen as a component Part of Plants.*

From certain experiments of Fourcroy on the juice of various plants, and on the water in which wheat flour has been washed, chemists had admitted the presence of albumen in a variety of plants. In a dissertation on the *green fecula* of plants published by Proust in the Journal de Physique for February, that celebrated chemist examines these experiments of Fourcroy, and compares the properties of the supposed albumen with those of real albumen or *white of egg*. He demonstrates that they differ in every particular, and that the supposed albumen of Fourcroy approaches much nearer to gluten in its properties than to albumen. Hence he draws as a conclusion, that albumen has not been hitherto observed in the vegetable kingdom, and that the opinion of Rouelle, that the green fecula of plants contains a substance analagous to gluten, is well founded.

7. *To the EDITOR of the LITERARY JOURNAL.*

Mr. Editor,

As it is not within the means of every lover of literature in this country, to get access to authentic memoirs of foreign writers eminent in the walks of science; it has appeared to me, that the occasional insertion of Biographical Notices forms not the least interesting part of the plan upon which your Journal is conducted. Under this persuasion, I send you the following short account of the Life and Writings of Francis Redi, one of the brightest ornaments of letter'd Italy. I may, perhaps, from time to time, be a further contributor to this department.

I am your well-wisher,
Nunquam Otfosus.

Francis Redi was born of a noble family at Arezzo in 1626. He studied at Padua, where he took the degree of Doctor in Philosophy and Physic; and very soon afterwards rendered himself so conspicuous by his talents and acquirements in these sciences, that he was appointed first physician to the grand dukes Ferdinand II. and Cosmo III. At this time the academy del Cimento was occupied in a series of philosophical experiments which gave full scope and employment to Redi's genius; and at the desire of his noble patron, he undertook the investigation of the salts which are obtainable from different vegetables. With what success these experiments were conducted, may be seen by referring to his works. His principal attention, however, was directed to two more important subjects: viz. the poison of the viper, and the generation and properties of insects. In the first of these inquiries he shewed the surprising difference there is between swallowing the viperine poison, and having it applied to the surface of the body by a wound. He also proved that, contrary to the assertion of Charas, the virulence of the poison does not depend upon the rage or exasperation of the animal, since the poison collected from a viper killed without being previously irritated, and dropped into a wound produces the same fatal effects, as that which is infused into a wound made by the animal when purposely teized until it bites. On the subject of insects, he refuted the doctrine maintained by all the ancients and by many moderns, of putrefaction being the cause of their generation; a doctrine which had, indeed, been attacked some years before by an Italian author named Aromatari, but not with that weight of facts and force of argument which are so conspicuous in this treatise and the rest of Redi's writings. His observations on various natural productions brought from the Indies, and on animals that live within other living animals (*osservazioni intorno agli animali viventi che si trovano negli animali viventi*) exhibit many curious experiments and discoveries. But while he was thus engaged in philosophical pursuits, he did not neglect the duties of his profession, as a physician. His letters contain numerous histories of diseases and of their treatment; for he kept a register of all remarkable cases and consultations. He was particularly diligent in noticing the operation of remedies, and in many disorders enjoined a very abstemious diet. Redi's merits, however, were not confined to philosophy and medicine. He was also an excellent philologist and an elegant poet. All his writings possess the attraction of a pure and polished style; and the Academy della Crusca justly regarded him as one of the best authorities, in the composition of their celebrated Dictionary. This indefatigable philosopher and amiable man died at Pisa in 1698, having previously suffered much from epileptic attacks. After his death, a medal was struck in honour of his name, by order of Cosmo III. His works have gone through various editions; but that which was printed at Naples in 7 vols. 4to. is esteemed the best.

NOTICES.

Mr. Russel, the crayon painter, has brought his globes of the Moon to great perfection. We observed the following Lines written on one of them:

Me prope viderunt Actæon, Endymionque
Hos memini solos; ast ubi Russelius?
Auctore Nevil Maskelyne. A. R.*

Actæon and Endymion saw me near,
But when did I to *Russel* thus appear?

Mawe, at his Repository in Tavistock-street, Covent-garden, has among other curious specimens of Ores, &c. some *Sulphate* of *Strontian* from Italy; some Vases made from *Silver Vein Fluor*; a specimen of Native Gold crystallized, and a large Vase of *Fluor Spar*, valued at 200 guineas, made after one of Sir W. Hamilton's.

It has often been remarked, by observing Mariners, that a peculiar motion is given to Ships, by a sort of recoil, and cross undulations of the swell, on the approach to any land: it may be felt even by a person in his bed.—If the same agitation of the water takes place at a great distance from any land, it denotes a sudden shift of wind; and this observation may prove of essential service to young seamen on the *Coast of America*, where the Wind often shifts suddenly from the southward to the N. W. and then blows a hurricane, so that not a moment should be lost in preparing for it. For want of this precaution many vessels are taken by the lee and founder. This was the case with Rodney's Prizes, the fate of many of which, such as the *Ville de Paris*, the *Centaur*, &c. is still fresh in the memory of the public.

It would prove of essential service to Naval men, if a correct account of the prevailing Winds in different Seas, was published by authority, from the Observations of experienced officers. We still too much lean to theories of Closet Reasoners Much has indeed been done, but much remains to be performed.—The following, is the seaman's adage:

"Mind, if the Wind's before the Rain,
You hoist your Top-Sails up again;
But if the Rain precedes the Wind,
Then quick your Top-Sails closely bind.

LITERATURE.

1. Percival's *Account of Ceylon.* (*Concluded from our last Number.*)

THE Ceylonese have formerly possessed more learning and science than now, as may be inferred from inscriptions on the ruins of temples, which the natives and Malabars, employed by the Dutch, have in vain attempted to interpret, and from ruins of temples built of hewn stone, and also some temples in a perfect state of preservation, which are of superior workmanship to any erected in later times in the lower part of the country.* (pp. 188, 203, 381.)

The interior part of the island is much encumbered with mountains, and almost covered with wood, agriculture being in a lower state here than in any other part of India. A more tranquil condition and more liberal intercourse with their European neighbours, may introduce a more vigorous cultivation, and then the country may easily recover its former population: for the remains of some towns, now in ruins, shew that the Candian kingdom was once more flourishing and populous than it is now.

The ninth chapter treats of the religion of the Ceylonese. The priests of Buddou, the next in dignity to the Supreme Being, are called *Tirinanzes*. They have the chief management of affairs at the court of Candy; and their privileges and powers are equal to those of the papal hierarchy in the highest days of their exaltation.

The tenth and eleventh chapters are allotted to circumstances which distinguish the Cinglese from the Candians, and a description of the Candian territory:

'The state of constant hostility in which the Candians have so long continued with the Europeans, and the independence which their mountains enabled them to maintain, have rendered the lines of their character more bold and prominent, while the subjection and tranquillity of the lowlanders have greatly softened the more rugged traits of their natural disposition.'

The Mohandrews, or noblemen, among the Cinglese living under the European dominion, are fond of imitating European manners. Most of them speak Dutch and the Portuguese of the island; and many have made some progress in learning English. Their affections may easily be conciliated so as to render them sincere friends to the British government, which may thus be established on a surer foundation than those of the Portuguese and Dutch.

The twelfth chapter describes the civil and military establishments of the kingdom of Candy, which are in a much more barbarous state than might be expected from the descendants of people who enjoyed a considerable degree of civilization thousands of years ago. Much of the misery of the people is ascribed by Mr. P. to the oppression of the Dutch, which was so intolerable, that they actually meditated a total desertion of their country, and proposed to seek for refuge in Ramiseram, an island near the opposite coast of India. But even from *emigration, almost the last resource of despair*, they were debarred by the Dutch, who, possessing every inch of the coast, compelled them to remain cooped up in their mountains. A more generous and conciliating policy, it is hoped, will now change the Candians from indignant oppressed enemies into contented and happy neighbours, connected with us by a reciprocation of good offices and the advantages of commerce.

The thirteenth chapter is appropriated to the Bedahs, or Vaddahs, a race of savages, who shun all intercourse with the other inhabitants, and live entirely in a state of nature on the flesh of wild animals, wild honey, and the spontaneous fruits of their forests.

The four next chapters are employed in describing the animals, vegetables, and minerals of Ceylon. Among the animals the first rank is due to the elephants, those of Ceylon, though not the largest, being superior to all others in form and sagacity. Among the vegetable productions there are two species of bread-fruit, and a species of palm producing sugar. A separate chapter is devoted to the cinnamon, the most important production and the staple of Ceylon, where it grows to greater perfection, and especially in the neighbourhood of Columbo, than in any other part of the world. It may, however, in point of importance, in time yield to *tea*, which is found to be a native of the forests in the least fertile districts of the island. An officer informed Mr. P. that he found the tea equal to any produced in China, 'and that it was in his power to point out to government the means of cultivating it in a proper manner.'—What a pros-

* Some of the temples in Ceylon are described by Captain Mackenzie, in the Asiatic Researches, Vol. VI.

pect of advantage this one article, now become a necessary of life, holds out to the possessors of Ceylon!—As Mr. P. does not profess himself a naturalist, his descriptions are not encumbered with scientific terms, and will probably on that account be the more acceptable to nine out of ten of his readers: but they are sufficiently descriptive, and, we presume, perfectly accurate.

The concluding chapter contains some observations on the present state of the island, improvements already made or practicable, revenue, establishments, and advantages.

'As a field for commercial enterprise, as a general depôt for stores and troops, and as a centre of communication with our other East-India possessions, there can no other station be pointed out to equal it in that quarter of the world.'

After finishing his account of the island, Mr. P. gives a Journal of the embassy to the court of Candy in 1800. The ambassador was received with civility mixed with jealous apprehension, or rather terror. An army of the natives attended all his motions, and hung on his skirts so as to prevent any communication with the country; and all the women were completely removed from having the smallest intercourse with his retinue, to prevent them from giving any information. In order to shun observation, the audiences, though conducted with as much pomposity as the poverty of the court would admit, were all given in the night time by the light of torches.

We have now given a brief view of the contents of Mr. Percival's work, with a few specimens and abridged extracts of what we thought most interesting, and but a few, for it contains more interesting matter than many books of much greater bulk. We must, however, observe, that in a residence of three years he might surely have collected as many vocables of each of the languages spoken in Ceylon, as would have given us some idea of them. Such collections, of which there are many good specimens in Cook's Voyages, furnish a rich treat to the philologist, and to the investigator of the origins of nations. Another desideratum, which ought not to have been neglected, is an account of the imports and exports, but more especially the latter, since the island has been under the British government.

It is scarcely worth while to notice some instances of carelessness in composition which can only be corrected by practice, or to notice some colloquial vulgarisms,* to which gentlemen who go abroad are, perhaps, particularly liable.

The book is illustrated by a map of Ceylon, reduced by Arrowsmith from a drawing in the possession of the commissioners for the affairs of India, and three charts. But the geographical description of the island in the beginning of the second chapter varies very widely from the map.

	Second chapter.	Map.
Latitude.....	5° 40′ to 10° 30′..	5° 51′ to 9° 53′
Longitude.....	70° to 82°	79° 43′ to 81° 56′
Length about ...	700 miles.....	242 geographical miles.
Greatest breadth ..	100	110

* Such as *carry e upsetting*, (p. 110.) *boat capsizing* and *boat upsetting*, (p. 112.) all for *oversetting* or *overturning*. *Partial to jugs*, (p. 122.) instead of *fond of jugs*, is, we believe, a vulgarism peculiar to London.

Mr. P. ought surely to have known that three degrees of longitude (79° to 82°) in the latitude of Ceylon contain 178 geographical miles, or about 207 British statute miles. There are some other geographical discordances, *e. g.* the *peninsula* of Jafnapatam (pp. 32, 45) appears *two islands* in the map.—Batacolo, 60 miles from Matura (p. 132) is 123 by a table of roads at the end of the book, and above 160 geographical miles by the road traced on the map.—The descriptions, frequently occurring, of the rivers Mulivady and Malivagonga can by no means be reconciled with the map. The latter is apparently described (pp. 36, 379) as sending its waters to both sides of the island.—The table of the roads concludes with observing, that the shortest road to Candy is between Caltura and Point de Galle, being only 70 or 80 miles. This gives reason to believe that Candy, where most probably no celestial observation was ever taken, ought to be placed farther south than it is in the map.

Except these inaccuracies, some of which we know not whether to ascribe to the map or the author, and the deficiencies we have just hinted, Mr. P. appears to have executed the task he has taken upon himself with great merit: and he has made a very considerable and valuable addition to our stock of information concerning an island, which has been hitherto very imperfectly known, but has now become exceedingly interesting to every person connected with India affairs, and, indeed, to every subject of the British empire.

2. *Comentari intorno all' istoria della Poesia Italiana*, &c. —*Commentaries on the History of Italian Poetry, by* J. M. Crescimbeni, *edited by* T. J. Mathias.

(Concluded from our 13th Number.)

From a natural and almost irresistible propensity of the human mind, people are generally apt to form an exalted opinion of the favourite object of their pursuits, to over-rate it in all its attributes, and to see through the prism of the passions any thing with which it happens to be connected; and, upon this, we do not wonder if Mr. Mathias entertains the highest idea of that branch of foreign literature to which he is professedly and enthusiastically devoted. As, however, some of his expressions on this subject are too strong, and have, in our apprehension, a tendency to lead his readers into great prejudices in the same respect, we think it proper not to suffer them to pass without remark. In his mind, *Italy is the most poetical of any country—if the modern Italians offer themselves in competition with their Latin ancestors, they will find no tragic poet of considerable fame among the latter—the Italian language is admirable for structure, elegance, propriety, splendour and sublimity—and no better studies can be undertaken in the present distressed times of poetry than those of the Italian critics.* We shall, in the same order, express what we think on each of these four weighty and complicate propositions.

1. We agree with Mr. Mathias that Italy is naturally the most poetical of all countries, and we have it in our power to give a reason why it possesses this great prerogative. The charms of the climate, and the beauty of the archetypes throughout the country, joined to the lively temper, the vivacity of passions,

and the energy of sentiment of the inhabitants, afford inexhaustible and perfect models to all the imitative arts. We have also reason to think that the Italians would have been really unparalleled in poetical fame, if, in the order of civilization, they had not been preceded by the Greeks and Latins, and been consequently doomed to be, in many departments, rather ingenious imitators than original poets. Taking, however, the facts as they are, we must examine how far the Italians have duly availed themselves of their natural advantages for poetical pursuits; whether they ever possessed over their neighbours that infinite superiority to which they were originally entitled; and how many, among the galaxy of their poets, are really entitled to an everlasting seat in the temple of fame? We apprehend that the ultimate decision would be utterly unfavourable to the nation.

2. The most unfortunate comparison which can be possibly made, in the present discussion, is that which Mr. Mathias makes between the modern and the ancient Italians in dramatic excellence. True it is that the Latins had no tragic poet of eminence, and this deficiency was the immediate result of the moral and political character of the Romans; as that warlike, ferocious, and sanguinary people, accustomed to the insulting and unmanly processions of triumphs, and to the still more shocking and inhuman spectacle of the gladiators had become too callous to any natural feelings, to possess that tender and exquisite sensibility which is requisite to enjoy the melancholy pleasure of tragic scenes, exhibited on the stage. But the modern Italians, without any of these obstacles, are full as much as their ancestors destitute of excellent tragic writers; and this is in fact the only branch of poetry in which they are acknowledged to be notoriously deficient. The celebrated Merope of Maffei (the citadel into which they retire whenever they are stormed by the batteries of criticism) is most certainly an eminent performance, as far as it concerns the happy expressions of maternal love, but exceptionable enough in the delineation of characters, in the succession of events, and in the dignity of style. The tragedies of Trissino, Ruccellai, Speroni, and others, who tried their talents in such compositions, during the 16th century, are, to adopt an expression from Bettinelli, a *sommifirons potion of the greatest efficacy:* those of Gravina, Conti, Panzuti, who made a similar attempt, towards the beginning of the 18th century, *are already gone to the family vault of the Capulets;* and the famous Count Alfieri, who, early in life, mistook his sour, atrabilarious, and misanthropic temper for a fine tragic genius, has already survived his renown. It is now pretty generally said of him, what was known but to few in the last generation, that he possesses a tipsy head and a cold heart, and that his style constantly displays that discordant emphasis, which is rather the proof of a convulsion than of sentiment or of eloquence.

3. We presume that Mr. Mathias has studied the Italian language in its constituent elements, and in its primitive and general combinations of words and sentences; and in this point of view he is certainly authorised to call it *admirable*. If, however, he takes the trouble (and he possesses the competency) to examine it with respect to the justness of expressions, to the gradation of ideas, to perspicuity and precision, to logical accuracy and rhetorical ornaments, we think, he may alter his opinion. As for us, our opinion has long been fixed, and we have constantly thought that the Italian language, in all the last mentioned attributes is infinitely inferior to the English and the French, and perhaps also to some others, in modern Europe.

4. We frankly declare that neither in the present nor in any other times we shall ever apply for poetical or oratorical instruction to the critics of Italy. A country which has produced such men as Addison, Johnson, and Melmoth, whilst the art of writing was connected with grammatical and rhetorical doctrines, and such men again as Hume, Blair, and Campbell, when it has been grafted on the philosophy of the human mind, has no need of the Italian or any other foreign critics, howsoever great and respectable! *Ne quid nimis!* F. D——i.

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3. *Some Account of the Works of* Don Lorenzo Hervas, *a Spanish Ex-Jesuit, on the Origin and Affinity of Languages.*

The works of *Don Lorenzo Hervas* present a literary phenomenon, the knowledge of which cannot but prove extremely interesting to all men of letters, engaged in philological or etymological researches, and yet, with the exception of Spain and Italy, they are but little known in Europe. The author published them at his own expence at Cesena in Italy, whence the whole edition was sent to Spain, but even there but few copies must have been thrown into circulation, because we do not find the least account of them either in the "*Memorial Literario*," or any other Spanish periodical publication. Those to which we particularly refer are four in number, and form the 17th, 18th, 20th and 21st volumes of the complete edition of the works of our author; but they are also sold separately under the following titles:—

1. *Catalogo delle lingue conosciute, &c.*—A catalogue of all known languages, with an account of their affinity, disparity, &c.

2. *Origine, formazione, &c.*—On the origin, formation, mechanism, and harmony of idioms, &c.

3. *Vocabulario poliglotto, &c.*—A polyglot vocabulary of one hundred and fifty languages, containing new and useful discoveries, relative to the structure and mechanism of words, &c.

4. *Saggio pratico delle lingue, &c.*—A practical essay on languages, containing the Lord's prayer in upwards of three hundred languages and dialects, &c.

The first work is divided into five chapters, the first of which contains an historical account and comparative view of American languages, that is, of the languages of *Tierra del Fuego*, of the *Patagons*, of *Chili*, *Paraguay*, *Brazil*, and *Terra Firma*, of the *Oroonoco*, *Casanare*, and *Meta*, of the *Antilles*, *Peru*, *Quito*, as far as *Panama*, *New Spain*, *California*, *North America*, and *Florida*.

The second chapter contains the languages of the South Sea from America to the Philippine islands; they consist of 29 dialects of the *Malay*-tongue and five different languages of *Mindanao*.

In the third chapter the author treats of the Asiatic idioms in the following order:—1. Of the Chinese tongue with 15 dialects; 2. Of the language spoken from the mouth of the Ganges to the Persian Gulf; 3. Of the idioms of Arabia, Syria, Palestine, Chaldæa, Armenia, Natolia, Georgia, and the rest of the Turkish Empire; 4. The Tartarian languages or the idioms of Chinese Tartary, Russia and Japan. Under the article of Georgia the author shows the analogy which exists between the Georgian idiom and that of Biscay, and alleges several arguments, tending to prove, that Georgia in ancient times was peopled by colonists, emigrated from Spain.

The fourth chapter treats of the European languages, divided into the Illyrian, Scythic, Turkish, Greek, Teutonic, Celtic, Cantabrian, and Latin idioms. Under the article of the Latin tongue, the author observes that the idioms of Valachia and Moldavia are derived from that language, and the Irish and Erse he considers as dialects of the Celtic tongue.

The fifth chapter contains the languages of Africa, that is, the idioms of Egypt, among which are found the *Galas* tongue with 24 dialects, the language of Zanguebar, and that of the Hottentots. To the latter belong 52 dialects of the *Madingo* tongue and 28 dialects of the language of *Gialosa*, used in Guinea.

At the end of this work the author gives a general account of all known *mother-languages* of which he counts

α. 50 in America.

β. 7 in Asia; which are the Chinese, Malay, Hindoo, Hebrew, Armenian, Maatschou, and Mogul languages.

γ. 7 in Europe; the Illyrian, Scythic, Tartarian, Greek, Teutonic, Celtic and Cantabrian idioms.

δ. 8 in Africa; the Copt, Galas, Hottentot, Congo, Madingo, Gialosa, Fula and Askanic tongues.

The second work is divided into 14 sections, treating, 1. Of the different manners of speech; 2. Of the organs and mechanism of pronunciation; 3. Of the formation of words, relative to the organs; 4. Of the formation of words, relative to the objects designed; 5. Of words derived from others; 6. Of changes of primitive words; 7. Of the mixture of languages caused by the transmigration of nations; 8. Of words common to different languages; 9. Of primitive words found in several languages; 10. Of the harmony of languages; 11. Of the culture of languages; 12. Of the multiplicity and diversity of languages, which produced a confusion of idioms some centuries after the deluge; 13. Of the confusion of languages at Babel: the 14th Section contains, lastly, a variety of historical and philosophical remarks on languages in general.

In the third work the author compares the words, *water, soul, animal, year, white, mouth, arm, hair, head, house, clear, sky, heart, God, woman, day, fire, month, mother, night*, &c. &c. in 154 languages.

The fourth and last work is divided into six sections, the first of which treats of the advantages to be derived from etymological researches for the study of history; the second of the history of languages; the third of the usefulness of a collection of the Lord's prayer in different languages; the fourth contains a list of the languages, in which the author has given the Lord's prayer, and an enumeration of the countries where they are in use. The fifth section contains the Lord's prayer in almost all known languages, illustrated by grammatical notes. In the sixth we find hymns, prayers, and maxims, in 22 different idioms. The work terminates with a recapitulation of the languages in which the Lord's prayer exists, and which are 156 in number, besides the 150 cited in the polyglot vocabulary.

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4. *Topografia fisica della Campania*, &c. A physical Topography of Campania, by Scipion Breislak. 2 vols. 8vo.

This interesting topography, the author of which, during a long residence at Naples, and in the environs of that city, zealously improved every opportunity of exploring the physical constitution of that country, far excels all former descriptions of Campania, which have fallen under our observation. Mr. Breislak is the first who has ascertained the true limits of the "*Phlegean fields*," and pointed out all the waters found in that district, of which five or six only were known before him; he is also the first who has visited the extinct volcano, whose successive eruptions have formed the Northern part of Campania.

The work derives additional value from a map and five plates, added to it. The former is a general map of Campania, which represents the chain of the Appennines, that stretches from Cape Gaeta to Cape Minerva, the plain situated between that chain of mountains and the sea, the three rivers Garigliano, Voltorno, and Sarno, the volcanic heights, north of Mesine, the ridge of hills extending from Cuma to Mount Vesuvius, and the three islands of Caprea, Provida, and Isdria. All volcanic parts are indicated by particular colours.

The first plate exhibits the ancient craters found between Naples and Cuma, several of which are here described for the first time. The second represents Mount Vesuvius with all the currents of lava observable on it's surface, on most of which the year of the eruption is marked. The third plate contains a neatly executed plan of the city of Rome. By the unanimous consent of all naturalists, who have searched into the territory of that city, it is of volcanic origin. The seven hills form the basis of our author's plan, and he alledges very plausible reasons to prove, that they are craters of extinct volcanoes. The fourth plate contains the plan, profile, and front view of a machine, by means whereof the author has discovered, in the crater of Solfatare, a spring of excellent water, formed by the refrigeration of the vapours of the volcano, which is half extinct; and the fifth represents a singular crystallization of latten, formed by a current of lava in the year 1794.

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5. *Translation of the description of a Female Maniac, from Bloomfield's Farmer's Boy.—(Autumn*, p. 59.)

Admonet his latebris lascivia læta puellas
Sæpius agrestes implicuisse choros.
Se raptim aspiciunt, et maturantur amores,
Dum salit, ut silvis caprea, tota cohors.

Et ridet placidè veterum memor ipsa senectus
Quas fovet ingenuas corde juventa faces.
Has inter quondam nituit decus ipsa choreæ,
Naturæque simul pulchra Maria decus;
Credens innocuas vittarum artesque coronæ
Moturas ignes forsan, Alexi, tuos.
Bisque Maria decem vix jam transegerat annos,
Nec sponsa optatos ducitur ante focos;
Mentis ubi subitò languet vigor, interit acris
Vis oculi, et virgo per loca sola gemit.
Tristitiæ neque causa patet; modò nempe dolenti
Nunc mutant varias Risus et Ira vices!
Prata per ac segetes errantem Phantasis urget,
Inter et arboreos irrequieta locos;
Hic carpit violas, placuit rosa pulchrior illîc,
Nec putat assiduum quid sibi prosit opus.
Dæmonas ut cædat passim per tempora fusos,
Vimina de variis jam rapit arboribus.
Particula heu, Virgo, sacræ corrumpitur Auræ!
Hôc nihil ars morbo, nil medicina valet!
Flet Pater amissam sobolem, materque, senectæ
Quam fore subsidium credidit omne suæ!
Filia sed nescit luctus; pravèque proterva
Quicquid mos aliis fixerit, illa negat:
Nocte cibos sumit, mittens cava murmura lunæ,
(Si fors pallidulo tinxerit igne polos)—
Ah! noctem nimium illi obscuram, cui nihil ultrà
Speratur tenebras, nulla novanda dies!
Linquitur En! limen (sedes dilecta juventæ)
Ut tectum quercus, præbeat herba torum:
Membraque nocturnis afflata vaporibus, ultrò
Læditur in somnis, et mala facta dolet.
Mane novo assurgens volucres pænè anteit, omni
Gemma ubi de Virgâ jam breve pendet onus;
Sed neque Sol novus, et naturæ mille colores
Sunt cordi, aut nôrit non memor esse sui.
Juncta viæ sedet, oblitos incompta capillos—
Pristina Pastoris fibula munus abest;
Ora sinû celat: genua et complectitur ulnis,
Corpus et alternâ fertque refertque vice.
Priscum opus hic talpæ solium vocat, atque ibi pigram
Flet vitam, nec scit quid movet hos gemitus.
Sæpe gradum sistit juxtà, tacitusque Viator
Spectat, et injussâ lacryma repit aquâ:
Molliter adveniens quærit cognoscere questum,
"Eheu!" sed lento vox cadit una sono.
"Heu" repetit ventis, tollunt suspiriâ venti,
Ast abit haud ullo flamine causa dolor!
Afflatus timet: et quasi vix non conscia veri,
Triste semel verso lumine, cauta fugit.
Heu! spes illusæ! Voluptatesque peremptæ!
Vana Valetudo! siccine languet honos?
Nescit enim hæc permulta boni jucundaque (quamvis
Horret in humanâ plurima spina viâ)
Quæ comites priscæ capiunt, ætatis amandæ
Tempore dum vivæ more feruntur aquæ. RUFUS.

NOTICES.

Sir William Hamilton, so well known for his long residence at Naples as Ambassador from our Court, and for the great services he has rendered the literary world, died on Wednesday the 6th ult.

We shall give in a future Number, a full and accurate account of the literary and diplomatic labours of this eminent personage.

Proposals are circulated for a splendid edition of Pope's Works, with designs by West, Fuseli, Stothard and Westall, to be contained, in 18 volumes, 8vo.

Mr. Preston of Dublin, is about to publish a translation of Apollonius Rhodius, in three volumes.

Mr. Arrowsmith's large chart of the West-Indies, dedicated to Admiral Payne, will be published early in May.

Mr. Russell exhibits this year one of the largest crayon-pictures that was ever known. It consists of a family groupe, Lady Johnstone and Family: the size is six feet six inches in length, by four feet five in breath.—The whole is in his best manner.—There will also appear from the same ingenious artist—*Peace and Plenty*; *The St. Giles' Songstress*; and the *Grandfather of the Cottage*, the last in Oils.

Mr. Heathcote's Sale of Duplicates begins at *Jefferies'* in Pall Mall on Monday next; on which day Mr. Greave's Sale also commences at *Leigh* and *Sothely's*.

Mr. Gyll's Sale finished on Friday last. Some Purchases were made by Mr. Dalrymple, and Dr. Burney. Mr. Heber bought a set of the *Gentleman's Magazine*, from the beginning in 1732 to October 1802, eighty volumes bound, and the rest in numbers, for £30 9s.—Seventeen volumes of *Historical Tracts*, and *Pamphlets*, were bought by Mr. Baker, for £7 17s. 6d.—A small box of MSS. which had been taken out of the books, with some drawings, went for £5 10s.—North's life of Lord-Keeper North, with many marginal Notes by Mr. Gyll, went for £1 13s.—The life of Bernard Gilpin, by William Gilpin, with several Original Letters, and other MS. Notes, was bought by Mr. Gough for £5.

Translation of the inscription on the monument erected to Tippoo Sultan near Seringapatam:

Since Tippoo vowed to wage a holy war,
On Tippoo God conferr'd a martyr's fare;
And now this world has left, as Shuheer sings,
The faith's defender, and the king of kings.
Anno 1213 Hegiræ.

The date is in the last line according to the powers of the Oriental letters.

The printing-house of Bodoni.—From a catalogue of books made in 1798, by the unrivalled and justly celebrated Parmesan printer Bodoni, we see that all the publications which had issued from his presses, till that year, were 97 Italian, 24 Latin, 21 Greek, 12 French, 7 English, and 1 Spanish, in different sizes, from 18mo, to the largest imperial folio; and either on superfine, or wove, or vellum paper. The Italian are republications of known works; with the exception of one new work, the biographical memoirs of the celebrated Piedmontese historian, the Abbé Denina, which will certainly prove curious and interesting to all readers. We have also found among the Latin a life of Petrarch by the learned and elegant living latinist *Fabroni*, the author of the excellent and voluminous work entitled, *Vitæ Italorum doctrinâ excellentium*. And among the French, it is curious that there are no less than four editions of different sizes, and on different papers of *La Religion Vengée*, a poem, by the late Cardinal de Bernis.

Besides all the above mentioned editions, we also find in the catalogue 29 works printed on vellum, and 5 on silk. Of the former class there are four different editions of Anacreon, three of Callimachus, three of Tasso, three of Bernis, Cornelius Nepos, Epictetus Græco-Italian, Salust, Virgil, Guarini, Petrarch, Politiano Ruccellai, Tansillo, Savioli, Parini, Cicci, the Castle of Otranto, Camden's Britannia, Thomson's Seasons, and Visconti's descrip-

tion of two Mosaics. Of the latter, Epictetus Greek and Italian, in royal 4to; Politian's stanzas, small 4to, the Bees of Rucellai; and the Farm of Tansillo, in the same size; and Triphiodorus, in Greek, small fol.

MANNERS.

TO delineate the Manners of the present age was a bold attempt, and we felt its full force, when we promised in our Prospectus to make these Sketches. The history of Manners forms an essential part of Literature: but though it received the attention of *Theophrastus*, and of *Bruyere*, and was often noticed by *Addison*; it had been strangely neglected by historians, until *Henry* devoted a portion of each period, in his valuable Work, to this most interesting subject.

DRESS, in whatever light it is considered, offers a fund of Anecdote and of remark. We therefore often station ourselves at the various corners of *Bond-street*, taking care to avoid the side that is abandoned to people *whom nobody knows*; and are also sometimes introduced as *Men Milliners*, or as pupils of *Messrs. Sogden* and *Blake*, so celebrated for skill in cropping hair, into the dressing-rooms of the fair sex.—What a tremendous EAR has *Madam Lanchaster* placed in the Centre of our fashionable promenade! doubtless to catch every whisper relative to the Mode. The thought at least is classical; and like the famous Ear of *Dionysius of Sicily*, this Tyrant Milliner doubtless intends to receive the warnings of her friends, and to encourage information against every one who shall presume to foster treasonable ideas against the various *Nudities* of the day. We trust therefore our facetious countrymen will let her Ear alone; and not think it necessary in a moment of boisterous mirth, as they are migrating from various Taverns to the crouded Supper tables at the *Mount*, to syringe this Ear; as we understand, from indubitable authority, that it is regularly defended every Night by *Man Traps*, and *Spring Guns*.

Madame Lanchaster, as a literary Milliner, particularly merits our attention, and on this account certainly deserves to be preferred, at least by us, even to the elegant, and all commanding *Madame Ansaum*.* The former devotes her leisure hours to the Press, and has already edited four numbers of a most superb work in quarto, called the *Miroir de la Mode*, printed with a large margin, on hot pressed and wire wove paper. In the last number we have the following interesting information:—"*One of her Correspondents suggested, that in order to enlarge her stock of information, and to collect useful hints and observations from all quarters of the circle of fashion, she should expose near the door, on the outside of her ware-room,* A LARGE EAR, *capable of receiving a letter.*" In consequence of the above hint from her ingenious Correspondent, *Madam L.* thinks it her duty to adopt a measure so likely to contribute to the improvement of a work, which it will be her particular study to render worthy the patronage of the elegant circles that have honoured it with their support. She therefore takes the liberty of acquainting her Friends and the Public, that in conformity to the plan suggested, *her Ear is offered*, in the front of her ware-rooms, *for the reception of those communications she so anxiously solicits.*

The plates of this work, engraved from drawings of the female dress by *Devis*, are accompanied by descriptions in *English*, *French*, and *Italian*; and why not in *German*, *Spanish*, and *High-Dutch*: what subject more fertile, or more sublime? the very expressions are poetic; of which the following description of the present *Walking Dress*, the *Abito per il passegio* of the Italians, will be a sufficient example. *Manteau également de dentelle noire, doublé de même, avec des manches longues, prenant la taille par derrière, et tombant en pointes par devant depuis le cou: la partie rabattue du collet garnie d'une haute dentelle.—Robe de cambric mousseline garnis en bas d'un double rang de mousseline avec un ourlet plat.—Gands et parasols bruns; bottines de marroquin noir lacées de rose tendre.*

The defects of *Johnson's Dictionary* have long been complained of, and some attempts have been made to supply those omissions which that Colossus thought beneath his attention. We therefore suggest, that an Academy be formed, without delay, of Literary Milliners, after the model of the *della Crusca*, in order to publish a Dictionary that shall explain the various parts of Female Dress, and trace their origin and etymology. For want of such a work, how many passages in our immortal *Shakspeare* are become difficult; and even the name of one of our principal streets *Pall Mall*, so called from a particular part of Female dress that was sold there, is now involved in utter obscurity.

The following Sketch may afford some idea of what we propose. The Terms are such as at present prevail in the Fashionable World, nor shall we insert one, without having the authority of a *lady's maid* to do so.

1. HUMBUG, BUMHUG, BUSTLE, BEHIND, or RUMP, used synonimously to denote that most valuable *Pad* which lifts a Lady's Rump to its right place; and this necessarily fluctuates with the Laws of fashion: for though our grandmothers were contented with the part which nature had fixed on, and used to lace down to it, like the great *Elizabeth*, and her Maids of Honour, with a most scrupulous exactness, nothing now can possibly be so odious. We greatly respect the wisdom of that Queen and her Virgin Gallantries, yet we must indeed allow that she really displayed a most *Abominable Bum:* this word doubtless came from the Dutch *Bomme;* and, however harsh it may now appear, has been rendered classical by the use of our best poets:—

> "The wisest Aunt telling the saddest Tale,
> Sometime for three foot Stool mistaketh me,
> Then slip I from her *Bum*, down topples she."
>
> SHAKSPEARE.

And again,

> "From dusty Shops neglected authors come,
> Martyrs of Pies, and relicks of the *Bum*."
>
> DRYDEN.

The BUMHUG is therefore a classical term for a most valuable part of female dress, whose use was formerly supplied by a sort of Wire, that was very apt

* This *Tyrant* of the Fashion holds her empire in *John-street, Berkeley-square*, and when she condescends to shew poor folks, like ourselves, a Female Dress, which is a great favour, unless recommended by some great name, she will graciously allow us to have a plain muslin gown, bosom and sleeves trimmed with lace, for the very moderate price of 14 guineas.

to get bent and out of order. Sometimes, indeed, from the intolerable carelessness of Ladies' Maids this Wire was forgot, which gave so drooping an appearance to the back view of a lady, that we once heard a fair one exclaim, with an hysteric scream truly alarming, *Heavens! if the wretch has not forgot to wire my Tail!*

2. The DICKIE. The abhorrence the Fair Sex have long shewn to Petticoats, and probably the inconvenience of Drawers, suggested the utility, particularly in cold weather, of a very, very short flannel petticoat, which has hitherto received the appellation of the DICKIE. We have examined many, and find them nearly of an equal length; with a commendable philosophic spirit we also subjected one to a chemical analysis, the result of which is likely, when published, to make a great noise at the *Royal Institution*. The etymology of the term has sadly perplexed us, nor can we possibly discover by what means a DICKIE, and a short under petticoat, became synonimous. Probably this term is corrupted from the French *Dégager*; which according to the *Dictionaire Comique, Satyrique, Critique*, &c. of *Leroux*, is used in various significations:

1. DEGAGER, *signifie retirer d'un lieu perilleux et difficile.*

2. DEGAGER, *Se dit aussi d'un habit qui fait bien paroitre la* TAILLE *d'une Personne.*

Or might not this term come from the word *Dickens*, by dropping the two last letters, which Word is thus explained by Dr. Johnson—*A kind of adverbial exclamation, importing, as it seems, much the same with the Devil; but I know not whence derived.*

3. PLUMPERS, or ELASTICS, are those elegant waddings by which Modest Women are enabled to swell their Bosoms to any size that fashion may demand. They are extremely becoming, and give a certain *Sapphic* charm, and fulness to virgin Beauty. These PLUMPERS may be had to any size, and are made of various materials; but the best are formed from the remnants of *Old Wigs*, or the pluckings of a horse's tail; these have a peculiar and delightful elasticity.

4. The RIDICULE, remains entirely with the French milliners, and consists of a small bag for the hand, in which bag, now pockets are exploded, a lady may be allowed to have her handkerchief, and some few necessaries about her. For want of these necessaries, the fair Sex have often been sadly distressed, and it was firmly believed during the ravages of *Le Grippe*, that Pockets, in consequence of such distress, would be again restored.

6. The BOSOM FRIEND, consisting of a square piece of Fur, or Tuft of Down, is now, we believe, nearly exploded by the above-mentioned *Plumpers*, and also by the *Bear-skin tippets*. The *Bosom Friend* however had its day, it often gave warmth to a cold heart, and protected a genial one from inclemency. Being stationed amidst so many Charms, it received and merited the raptures of The Lover, and the eulogies of the Poet.—What Present more acceptable could a Mistress devise to sooth the throbbing anguish,

> "Of love sincere that never slept,
> Since when it bade Farewell!"

Sensible of the truth of this remark, an ingenious, though anonymous author, who only signed himself an *Etonian*, published in 1791, a poem of considerable merit, divided into five Books, styled *The Bosom Friend*,* which he describes, as

> "The little Ægis of the breast of snow."

With an extract from this poem we for the present take leave of our readers:—(page 24.)

> "Ye radiant forms, to make the Fair more fair,
> For whom each mode Parisian hands prepare;
> The pure white lily, and the rose's bloom,
> And farthest India sends her soft perfume:
> Ah! with your favour crown the bold design,
> And with your smiles inspirit every line.
> Each line shall hold your matchless charms in view
> No trivial subject what belongs to you.
> In Fame's bright page the *Bosom Friend* shall stand,
> The gift and labour of no mortal hand.
> "Soon as the Gods in shouting peals beheld
> The gift of Momus cut th' aerial field,
> The chaste Diana (all in wonder gaze)
> A strip of ermine from her vest displays,
> The downy ermine by her dart laid low;
> Square was the strip, and white as mountain snow;
> White as the Swan, whose glossy plumage beams
> A milky radiance on the silver Thames.
> "O Venus! (gan the huntress of the grove)
> Still must each Virgin mern Dian's love.
> Secure in this the lovely maid shall live;
> Safe in the present Dian deems to give.
> When the hot ball and crouded rout shall end,
> Whilst midnight dews in baneful showers descend,
> If this with genial warmth protect her breast,
> No storms shall scare her, and no gales molest.
> What tho' no Beau with soft attentive air
> Proclaim her coach, or hand her to her chair.
> Thro' show'rs and dews undaunted she shall go;
> Tho' none shall offer, she shall need no Beau.
> From thy own hands then be the gift convey'd;
> No common present to an earthly maid." SQUI.

* Printed for Faulder in 1791, 12mo. 51 pages.

POLITICS.

1. *Considerations on the Power of France.—Continued.*

THERE are two classes of men with whom it is vain to reason, those whose understanding is unfit to weigh your arguments, and those whom their passions will not permit to weigh them. The first are only to be moved from an erroneous apprehension by the force of public opinion, and the other by the experience of events; and both these operations are slow. We do not flatter ourselves, therefore, that we have made any impression upon such of our countrymen as fall under these descriptions, by the statements which we have lately presented to our readers. But to those who understand what constitutes the strength of nations, and who are candid and patient enough to consider the circumstances which form the basis of sound opinion on this subject, we are confidently persuaded that we have presented proofs sufficient to establish this position; that France, at this moment, is no object of terror to Europe. It remains for us to shew what force is in the objections made to this conclusion and its proofs, by the persons who proclaim the great and unexampled dangers arising from the power of France, in their opinion so enormous. But previous to this,

we will yet present one or two documents to their consideration, respecting those circumstances which we account sources of the weakness of France.

If we be correct in the statements which we have produced, the produce of the soil, and of the manufactures of France, is small to a degree almost incredible. We are happy to be able to produce an authority in favour of these statements, which will go farther than many arguments of ours, it is that of the Decade Philosophique, a periodical work conducted by some of the most eminent literary characters in France. In the last number, published on the first day of this month, is a review of a book of considerable merit which has just appeared, entitled *De la Richesse Commerciale*, in which the author has made some use of the statistical accounts of the different departments drawn up by the prefects. The authors of the Decade Philosophique, after criticizing this part of the work, proceed in the following words:—

"The perusal and comparison of all these statistical accounts leads to the solution of a question of some magnitude. It is asked how France, aggrandized by a fourth of additional territory, pays with so much difficulty, and with so much pain, taxes which do not exceed those which she paid formerly, under a management evidently worse, and under the domination of the privileges of the nobility and clergy? But the perusal of the statistical accounts of the departments shews, by facts collected in each canton, that the products of industry (*produits industriels*) have diminished, in some places a fourth, in some a half, and in the *greater number three-fourths* of what they were before. Is any thing more wanting to explain the phenomenon? The taxes are not more considerable, but the matter taxable is less. France resembles a sick man beginning to recover, who immediately after turning the crisis of his disease, is not in a condition to make the same efforts, as if his health were perfectly re-established."

The next document, which refers to the new fourth added to the dominions of France, represents a state of things perfectly shocking. We mentioned in our 12th Number, as a proof of the wretched condition both of the people and of the government of France, the sum of money which the government expends annually in prosecuting the people for the payment of the taxes. But we were not aware that the state of so great a portion of the republic was so dreadful as it is; and we were truly surprised to find in the *Moniteur* of the 5th instant, that the government is obliged to suspend prosecutions for debts in the whole of the provinces on the left bank of the Rhine, from the utter inability of the people to pay them, and that they may not totally abandon the country; chusing rather to renounce their property in the soil, than bear the hardships imposed upon them. In the sitting of the Tribunate of the 4th of this month, Dacier, one of the members, gives the following account of that suspension:—

"The four departments of the left bank of the Rhine, have constantly been one of the chief theatres of hostilities, during the whole course of the last war; enormous sacrifices both in money and provisions have been the necessary and melancholy consequence of the presence of the troops of the belligerent powers on that extensive territory; and the actual amount of the debt of the *communes* of these departments is estimated at 70 or 80 millions.

"In that sum, indeed, is comprised the debt contracted prior to the war; but that forms only a very small proportion, insomuch that this enormous mass of 70 or 80 millions is composed, almost entirely, of debts *forcibly* contracted by the *communes*, or districts, between the commencement of the war, and the conclusion of the year 7."

The tribune then quotes the words of the orator of government to the legislative body, in his account of the object of the law, as follows:—

"These debts have their origin in the contributions of the war, both in provisions and money, to which these *communes* have been subjected for the service of the armies, and which have obliged them for their discharge to have recourse to borrowing, because the urgency of the wants of the army, and the rapidity of its movements, could not be reconciled with the length of time necessary to adjust the proportions to be paid by each of the inhabitants."

The tribune proceeds:—

"The most active and rigorous prosecutions have been carried on not only against the persons who are directly security for these debts, but against the ancient magistrates, and officers of the *communes*, and against the citizens, who in certain cases have supplied their places, and whom the creditors of the communes consider as personally responsible, in particular, when the deliberations of the communes have not been inserted or mentioned in the contracts. To deliver themselves from these severities a considerable number of families have followed the resolution of emigrating, and have gone to seek an asylum, and peace, on the right bank of the Rhine, leaving their houses and lands at the disposal of their creditors, to whom they form a pledge almost totally illusory; since there can be no purchasers in a country deserted by its inhabitants."

Such is the picture which the members of the government themselves draw of the situation of one fourth of the empire, the fourth which was best cultivated, best peopled, and of which the inhabitants were by far the richest, the most ingenious, and the most industrious. And such are the effects of the military exploits of France, which we are told have raised her to so formidable a state of power.

We have one other very extraordinary circumstance to represent; a circumstance with which many important consequences are inseparably connected, the amazing degradation of commercial credit. What will the people of this country think, when they are informed (for not many of them are acquainted with the fact) that the banks of Paris at this moment discount bills as high as at 2 per cent. per month! And what opinion will be formed of the future operations of such a country by those who draw not their conclusions from the very surface of things, but are capable of judging of the inward and peculiar nature of modern societies!

The people, however, who counsel war, with so much vehemence, laugh at all this, as the politics of shops and counting-houses, the speculations not only

of ignorant, but of fearful, of sordid, and selfish minds. They do not allow that the poverty of France necessarily implies the weakness of France, they proclaim the number of her soldiers; France has 500,000 men in arms; she has 60,000 men on the north-west coasts of the republic; she has flat-bottomed boats innumerable; what security does her poverty or your riches give you against these dangers? This may be admirable reasoning with people who love fighting, and who hate French republicans; but people who love the happiness of their fellow subjects, and who have no aversion to French republicans, but as they are bad neighbours, will take some comfort to themselves under the idea of French malevolence, when they consider that the French are languishing in poverty, and we are flourishing in riches. It is a formidable thing, they grant, to think of thousands of French soldiers, and of flat-bottomed boats; but when they consider that these thousands of French soldiers must eat to make them very formidable, and that riches is rather a necessary mean to this end, their fears are somewhat abated.

But, say the advocates of war, Bonaparte will make his soldiers eat you; that is, your riches; and what advantage do you gain from this boasted advantage then? This brings the question to the point in doubt at once. So then the only thing we have to fear from a war with Bonaparte is invasion, and conquest? To be sure it does not require a greater quantity of food to maintain 40,000 or 50,000 men on their passage from Dunkirk, and Brest to the coast of England, than even Bonaparte can furnish. But is this all that is likely to be necessary? Supposing these alarmists to be at the head of the counsels of the enemy, would they advise the invasion of this country, as a measure against the success of which no chance was to be feared; and of which the failure was to be attended with no ruinous consequences? In the first place, we should think the chances of failure must needs occur to them in considerable number. These we shall consider immediately. But, next, in case of failure, are the consequences no object of terror to Bonaparte? The loss of 50,000 men, it will be said, is nothing to Bonaparte? But is the reputation of his government nothing to Bonaparte? And is it likely to receive no wound from such an event? Consider only the state in which society at present subsists in France. Are the minds of the people so formed by long habit to the present order of things that they cannot easily be reconciled to any other? Has that state of discordance, agitation, and tumult which prevailed so lately in that country left no tendency to return to that state again? Have the factions which rent the state in different directions totally disappeared? Is there no one in France discontented with the government of Bonaparte? Is it not well known that the troops which he keeps within a few days march of Dunkirk and Brest, are within a few days march of Paris too? And is not this a very simple and obvious policy? The troops on the other frontiers are too distant to be useful on an emergeney. It is much less odious to guard Paris by troops apparently stationed against an enemy, than to station them directly against the citizens themselves. Bonaparte, though we do not think very highly of his wisdom, will not rashly strip the neighbourhood of Paris of troops, for the sake of invading England or Ireland.

But if he should, and we do not deny the possibility of the case, what are likely to be the effects of the attempt? Is any one mad enough to suppose this country is to be conquered? Who were the men that landed in the face of a French army, and beat them out of Egypt, though in possession of the country? Not more than ten thousand men can be shipped out of any harbour on the west coast of France during one tide. If ten thousand men are sent out of a number of harbours at once, they have a considerable space of sea to traverse before they can all join, and some thousands of men at sea in flat-bottomed boats are liable to some accidents. Is there no chance of our cruizers and squadrons falling in with them? We consider the difficulties and dangers of even effecting a landing on any part of the British united empire as so great, that no statesman in his wits would think of it; without a certain prospect of the greatest advantages to arise from it. Now is there such a prospect to Bonaparte? Suppose 60,000 men to be landed in England, even at the mouth of the Thames, and what are likely to be the consequences? Will they march directly to the capital? Who has any fears of that sort? With what facility the invading armies of France at the beginning of the war talked of marching to Paris! Who thinks that we shall display less energy in defence of our capital, so much more worth defending? The troops proposing to march to Paris too stood in a much better situation than those proposing to march to London. The former had an open country behind them and free conveyance of provisions from their own or from a friend's country. The French army here is immediately cut off from its country, and must find subsistence or death in ours. Is it difficult to foresee what must be the event of a contest of this kind? One county, or perhaps two, may be trod down and injured by the presence of hostile armies. In all other parts of the country the corn will grow, and the cattle feed, and the people labour very nearly as they did before, with the exception only of those withdrawn from labour to oppose the enemy. Great mercantile speculations will be a little retarded; but this they are by every commencement of war. The ordinary business of the ports will go on with very little alteration. And a few weeks will bring the evil to an end.

If such be the amount of the fears which can reasonably be entertained with regard to an invasion, a protracted contest, of the usual sort, the worst event which can afterwards happen, so evidently depends upon the riches of the two countries, that even those over whom terror of the French most completely prevails, cannot persist long in saying we have any thing to dread in that case.

They say, indeed, that from the very first year of the last war, we were told of the poverty of France, and in every year the tale was repeated, and in every year the French continued to extend their conquests. Observe who they are that make this objection. The loud advocates of the late war, who most furiously applauded all the actions, and speeches of the minis-

ter of that period, and who pronounce the severest censure on him by such language at present. It is a common thing for inconsiderate men to rush out of one extreme into another. Being deceived in their expectations of the weakness of France from their own conceptions of her poverty, they now conclude that poverty is no cause of national weakness at all. This is a sagacious conclusion. Mr. Pitt made only one small mistake in his estimations of the poverty of France. He considered the want of credit as poverty But he should have known that the government of France, though it wanted credit, had power. He reasoned from the depreciation of the assignats, and other paper of the government. But he should have reflected, that though nobody would lend to that government, either on the credit of its circulating paper, or any other credit, there was no power to prevent that government from *taking*; and he should have known that there was a great deal in France to *take*, at the time when he began to contend with her. The difference then between Mr. Pitt's argument respecting the poverty of France and ours is of considerable importance. We say, and we believe we have proved, that there is nothing in France at present which can be either borrowed or taken.

What a picture does the government itself of that country draw, of the extent to which this power of taking was carried! What facts are displayed in that extract of the speech of the tribune Dacier which we quoted in the beginning of this paper! Not only was every thing taken from the inhabitants which they immediately possessed, but after this was exhausted, they were obliged to borrow upon the credit of their houses and lands to give to government, to a greater amount than the value of these houses and lands themselves, and they are now willing to abandon them to their creditors, to get rid of the prosecutions!

Shall we be told after this that France makes war with her armies alone? France made war with the whole mass of property within her boundaries, not with the surplus produce only of her industry, but with the capital of her cultivators, the capital of her merchants, the capital of her manufacturers, and even the price of her soil. And she expended a greater sum in her late struggles, than France, and all the riches which it contains, would now bring, were they to be set to sale, and could a purchaser be found.

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2. *National Bank of France.*

The new law proposed in France respecting the establishment of a national Bank, and the system of banking, in general, is of so much importance, that we think it our duty to lay some account of it before our readers.

Hitherto three banks only have existed in Paris, known by the names of *Banque de France*, *Caisse de Commerce*, and *Comptoir Commercial*. All these discounted bills of exchange, and issued notes payable to bearer on demand. And they were all private companies, unconnected with the government.

The present government of France, probably from an opinion of the great advantages derived by the government of England from its connection with the bank, has resolved to form to itself an engine of the same kind; and in order to make it a more powerful instrument, has decreed to remove from it all competitors. The *banque de France* is the bank which is to be taken into association with the government, and the other two, the *Caisse de Commerce* and the *Comptoir Commercial*, are to be suppressed. The orator of government, who presented the project of this law to the legislative body, informs us in his speech that much pains had been used by government to persuade these two banks to submit to this regulation; but, since they would not voluntarily, it was necessary to use force.

The motive which that orator states for this suppression, is the great inconvenience which he says would arise to business from the rivalship of the bills and notes of different houses in circulation. We happen to be of an opinion directly the reverse in this country; that the rivalship of different houses is the best security which we can receive against all possible abuses of the trade. And though the bankers in London have agreed to take no notes in payment but those of the bank of England, this is for their own private accommodation, and would soon be altered were any undue advantage to be taken of it by that bank.

The *banque de France* is to be associated with the government in the following manner:

Its capital is to be raised from 30,000 shares of 1,000 francs each, to 45,000 shares of the same value.

Beside this capital the bank possesses 2,000,000 francs, under the title of a *fund of reserve*, being part of the gains of the bank, which had not been paid in dividends to the proprietors. This fund of reserve is to be lodged immediately in the government funds, in the *Cinq pour cent consolidés*.

The advantage to government of an operation of this kind is double. 1st, The taking a portion of its debt out of the market, upholds its credit. And 2d, the making the great mercantile interest its creditors ensures their influence to be exerted in its support. The reasons which the orator mentions for government not having placed more of the capital of the bank in the national funds are two—1st, its respect for the principles of the property of the proprietors; and 2d, *the repugnance of the proprietors to see their primitive capital converted into public debt.*

Another contrivance is adopted by the government to obtain additional advantages from its bank:

Heretofore the bank has paid a dividend to its proprietors of 10 per cent per annum, and been able besides to create in 3 years the above mentioned fund of reserve of 2,000,000 francs. The government commands it to pay henceforth only 6 per cent; and to sink the remainder of its annual gains in the same manner as the fund of reserve in the national debt. By this operation a considerable sum of money will be every year applied to ease the burden of the public debt upon the credit of the country, and the bank will every year become a greater creditor of the government. As for the *justice* of this forcible restraint of the gains of the proprietors, the govern-

ment of France gives explanations: our readers will judge of their force.

The certainty of the payments of the dividends has raised the price of bank stock, and shares of 1,000 francs have for two months past sold for 1,400 francs. This is a prodigious disorder says the government, which it is the duty of government to guard against. What, continue they, would be the consequence, if when the credit of the bank is fully established and all difficulties removed, shares should rise to the price of 2,000 francs? There would be a loss, say they, to the proprietors of bank stock of a sum equal to the whole capital of the bank. This is an evil which government must prevent. For this purpose they decree that dividends shall not be made of more than 6 per cent. and the surplus shall be applied to buy the debts of government.

The privileges of the bank are granted for 15 years, and the other regulations ordained for its management chiefly concern the ordinary routine of its business, and are not of such importance as to deserve a particular notice. But there is one other provision in this law, which must not be omitted, that is, the provision respecting the formation of banks in every other part of the republic. No bank must be established in any of the departments, but by the authority of government, and after receiving its permission. The number of its notes must never exceed a sum prescribed by the government, and they must all be made at Paris.

It is difficult to foresee what influence it may throw into the hands of government, thus to place in them a complete power over the whole money-market of the state. Because the use which can be made of that power will depend in a great measure upon the servility or independence of the persons to whom the more immediate direction of the affairs of the banks shall be entrusted; and the details respecting the mode of election of these persons, are not sufficiently full, to enable us to judge with any accuracy what sort of persons they are likely to be. One thing, however, it is very easy to foresee, that so many shackles laid upon the great instrument of commerce, must be extremely adverse to the interests of that important concern; and that the improvement of the state must be greatly retarded by this law.

3. *On the interference of the House of Lords, with regard to Money Bills.*

Our attention was very strongly attracted some weeks ago to an Address of the Speaker to the House of Commons, on the occasion of a Money Bill being sent down with alterations from the Lords. He remarked that this was the second time within a very short interval that he had been obliged to call upon the house to attend to this unconstitutional interference on the part of the lords; and he accounted it his duty to warn them, in the most solemn manner, to guard vigilantly against these encroachments on the most precious of their privileges.

It appears, from the little notice which has been taken of this speech, that it passed as a matter of course, or of little consequence. To us it sounded in a very different manner. It aroused our fears, lest amid the numerous innovations of this changeable period, the house of commons should by degrees allow the guardianship of the public purse to be drawn out of their hands. The consequences of this would be fatal.

Did the crown depend only upon the lords, and not upon the commons, for the supplies of its wants, what further occasion has it for the house of commons, or what power has that house left to controul the operations of the crown? In that case the constitution becomes a mixture of monarchy and aristocracy without any balance of democracy. These two powers unite to oppress the third order; but oppose, and harrass each other in every other respect. In the present state of modern Europe so great is the influence of money that the power of supplying the crown with it, if granted to a body of nobility, who enjoy their privileges indepe dent both of the prince, and of the people, must convert the government into a pure aristocracy, of which the king, if he retains the name, must become the weak and obedient slave.

The extraordinary dependence of the government of this country upon money, on account of the enormous wants occasioned by the national debt, has continued to throw a greater and greater share of power into the house of commons, and to diminish in proportion that of the house of lords. The lords observing this, may naturally be supposed ready to take the smallest opportunity of introducing themselves into the management of the public purse. If one instance of this interference is allowed to pass, it will be quoted as a precedent, others will be introduced under its sanction; and it may become difficult to recover what may at present be kept from them with the utmost facility, merely by a little vigilance to guard the established laws of the constitution.

For these reasons we give the highest possible applause to Mr. Abbot for his patriotic, independent, and salutary warning to the house over which he presides. If any action could prove him to be supereminently worthy of the seat which he fills, it was this. And we trust, the nation has in it a pledge, that the house of commons, while he enjoys that seat, shall be too well instructed in the danger of remissness in this point, ever hereafter to fall into such an error.

4. *Police of London.*

We have frequently observed a shocking nuisance in the streets of the metropolis, occasioned by the mode in which the making of repairs is managed. The pavement is thrown up the whole breadth of the street, except a passage for a single carriage. In any of the more crowded streets the delay, and confusion, occasioned by this, is a very serious evil. In the midst of this interruption we have often seen no more than two or three men at work to expedite so inconvenient a business; and not unfrequently have observed a piece of a street broken up, and left for hours together without a single workman engaged upon it.

This confusion and delay has for some days past presented a singular spectacle in the most crowded and commercial street, perhaps on the face of the globe, Cheapside, on account of some repairs executing before the mansion of the chief magistrate of the

compartments by diaphragms perpendicular to the tube. They exhibit the appearance of long filaments, of a fine green, have a soft unctuous feel, and are often covered with air bubbles. Each of the compartments is filled with a matter which in some species assumes the form of a green spiral wire, studded at regular distances with brilliant points; in others there are two bodies which have the form a star, with six or four rays, and in others a green coloured tube. This circumstance has induced our author to divide the conjugata into 3 families; the conjugata with spirals, with stars, and with tubes. All these bodies assume different appearances according to the age of the plant and its situation. Each of the compartments appears to be a complete plant, and to perform all the functions of one, and they often separate from each other. In some confervas the number of compartments amounts to 100 or more.

The method of propagation observed in these plants is exceedingly singular. Two confervas are concerned in it. A nipple appears on the side of one of the compartments of one plant, and a similar nipple on the compartment of another conferva in its neighbourhood, and lying parallel to it. These nipples gradually unite, constituting a tube of communication between the two compartments. In this way all the compartments of the two confervas are united two and two. The spiral matter passes by the communicating tube from the one compartment and unites with the spiral in the other; its old form changes, and it becomes an oval grain. Thus one of the compartments is left empty, and the other contains a grain. The fructification thus completed, the conferva decays, putrifies and falls to pieces. The grains sink in the water. In process of time each of them separates at one end, and a tube similar to the parent issues out of the division. In the third family this transference of the contents of one of the compartments does not take place; each retains its own green coloured tube. Yet the union of two plants is necessary for fructification. In none of the species can any distinction be perceived between the matter in one compartment and the matter in another, nor can it be determined before hand what compartment will be filled and what will remain empty.

Mr. Vaucher divides this genus into 14 species. Those of the first family are the *conjugata princeps*, (*conferva jugalis* of Müller), *porticalis*, *condensata*, *inflata*, *adnata*, *longata*: those of the second family, the *gracilis*, *lutescens*, *stellina*, *cruciata*, *decussata*, *pectinata*: those of the third family, the *angulata* and *serpentina*.

3. *Hydrodictyum*.—This genus is named from the structure of the only species known; namely, the *pentagonum*, which resembles a net almost exactly. It is of a fine green, and floats in the water: the sides which form the meshes are usually five, and about a line long. They are cylindrical tubes filled with a green matter, interspersed with brilliant grains. These tubes are attached to each other by means of a membrane which envelopes the end of each. It is a very hardy plant, being capable of bearing a very cold temperature without destruction, and the summer sun, though it dries up the water in which the plant lives, does not extinguish its life, for it becomes green again when plunged into water.

The plant acquires its full size in autumn, it then sinks to the bottom of the water, and remains secure in the mud till spring. At this season all the tubes swell, detach themselves from each other, ascend to the surface, and float separately. The tube gradually becomes flat, increases in size, its fibres separate from each other, and in a few days it assumes the form of a perfect plant. Thus this conferva is propagated by the separation of all its tubes, and the conversion of each into a plant like the parent.

4. *Polysperma*.—The filaments of the confervas belonging to this genus are opake, solid, and cartilaginous, like those which occur so frequently on the sea shore. Their colour is of a dark green, and the most common species, the fluviatilis, is most commonly attached to the wooden works near the water-wheels of mills. These filaments are ramified, and each of them is divided into several compartments by strangulations not very unlike the joints of corn. The intervals are filled with small grains, which our author ascertained to be the seeds of the plant. In the spring, the tube separates and allows the seeds to drop out, after which the parent decays. The seeds gradually vegetate, and produce plants which continue for a year, and then give place to another crop of them. Sometimes the seeds germinate before they separate from the parent, and form a kind of bud, which after some time drops off and vegetates separately.

Our author describes only two species of this genus, the *fluviatilis* and the *glomerata*, and this last he places among the plants belonging to the genus only from analogy.

5. *Batrachospermum*.—This genus owes its name to the gelatinous feel which all the plants belonging to it have, which made Roth, the inventor of the term, compare them to the spawn of frogs. They very readily slip through the fingers, and when spread upon paper adhere so firmly, that they cannot be separated unless they are moistened. They are ramified into a prodigious number of divisions scarcely distinguishable by the naked eye, which gives the plant a velvety appearance. These divisions in several of the species originate from a primitive trunk which is formed of transparent rings, or rather it consists of a tube divided into a number of distinct compartments, containing each a quantity of green matter. In other species there is no trunk, but the divisions proceed without any regularity from the base to the summit. Each ramification is terminated by a long transparent hair of extreme fineness.

These confervas may be considered as composed of a vast number of solid oval rings following one another like a string of beads, and enclosed within a fine transparent tube, which terminates at its extremity in a fine long hair. These rings diminish in size from the base to the summit, and at the commencement of the hairs escape the sight altogether.

When the plant has acquired its full size, the rings of which it is composed separate from each other. These rings gradually increase in bulk, and assume an irregular form. By and bye they acquire a degree of transparency, so that young plants may be seen making

their appearance within them. These plants gradually pierce through the ring in which they are enclosed, and extend themselves every way like radii from a centre, each thread becoming a young batrachospermum. Thus these plants have a method of propagation different from all the other genera of confervas. Each of the rings of which they are composed is a capsule, and contains a number of seeds, or at least a considerable number of the rings. For our author supposes that some of them are barren, or filled only with a fructifying pollen.

All the batrachospermums adhere to stones or other bodies. Mr. Vaucher divides them into two orders, or rather families. Those which ramify from a trunk constitute the first order. Three species are described, the *moniliforme*, *plumosum*, and *glomoratum*. The second family contains those which do not ramify from a trunk. Two species are described, the *fascitulatum* and the *intricatum*.

6. *Prolifera.*—The confervas belonging to this class multiply by means of buds which appear on their surface and gradually drop off. They multiply with prodigious rapidity, filling a whole collection of water in a very short time. Hence the name given them by our author.

At first view they have a considerable resemblance to the ecto-perma, consisting of tubes rarely ramified, of a green colour, divided into compartments, and within, brilliant grains may be distinguished. The length of their tubes is very great, amounting often in the *rivularis* to several feet.

At the season when they multiply, cylindrical swellings like knots appear on the tubes. These are soon covered with a green powder. By and bye numerous filaments issue from the swelling, which gradually increases in size, and assume the form of the parent plant, and doubtless after an interval of time drop off and form new colonies of proliferas in other places.

Several of the species of this genus are parasitical plants; being constantly attached to other confervas. Mr. Vaucher acknowledges that he has paid less attention to them, than to the confervas belonging to the other genera.

Such is an abridgment of our author's discoveries respecting the confervas. Many of his observations must be allowed to be highly interesting, the different modes of propagation peculiar to the different genera are particularly so. We omit the arguments advanced by M. Vaucher against the opinion of Girod-Chantrans, that the confervas are animals, as we consider the facts discovered by our author and stated above, to be quite decisive, if we add to them the total want of motion and of any thing resembling an animal structure in all the confervas.

With respect to our author's style and mode of writing, it bears the marks which characterize many of the productions of Geneva. Diffuse to excess, but perspicuous and entertaining: breathing an ardent passion for the study of nature, and well calculated to infuse the same passion into the reader. We shall take another opportunity of stating M. Vaucher's discoveries respecting the tremellas and ulvas, which occupy nearly one half of his book.

2. *On Pyrophorus. By* J. B. Van den Sande *.

The pyrophorus of Homberg, a composition which takes fire spontaneously when exposed for a few instants to moist air, is well known to every chemist. It is formed by calcining together to blackness a mixture of alum and sugar, or any vegetable substance capable of affording charcoal; and the black mass is heated to redness in a phial placed in sand. Scheele long ago demonstrated the necessity of potass for the successful preparation of this pyrophorus. It has been usually considered as a sulphuret of potass and alumina, mixed with charcoal in a state of extreme division. According to Van den Sande, it is hydrogenized sulphuret of potass and alumina mixed with charcoal.

The necessity of moisture for the combustion of pyrophorus was known before. It has been confirmed by the experiments of Van den Sande. He put pyrophorus into a glass jar filled with very dry air, no combustion took place; but upon admitting the vapour of water the pyrophorus instantly took fire.

He put a small glass vessel containing pyrophorus well corked under the receiver of an air-pump, and having exhausted the receiver, he uncorked the pyrophorus. It took fire and burnt for some instants.

Mr. Van den Sande gives the following theory of the cause of the combustion of the pyrophorus. The water absorbed is decomposed, sulphurated hydrogen gas is formed, which is set on fire by its combination with the oxygen of the water, and this combustion is communicated to the charcoal and sulphur present in the pyrophorus, which burn in their turn. This theory, to say the least of it, is extremely unlikely, and very far from corresponding with the phænomena exhibited during the combustion of pyrophorus. The extreme combustibility of this substance is owing chiefly to the state of minute division in which the charcoal is contained in it. The hydrosulphurets solidify the water which previously existed in the state of vapour, and the heat which is always evolved in these cases is sufficient to raise the temperature high enough to set fire to the pyrophorus. If Mr. Van den Sande tries the experiment with accuracy, he will find that pyrophorus will not burn in vacuo. It requires air just as much as any other combustion whatever. This circumstance alone, concerning which there can, we think from actual trial, be no doubt, destroys the theory of this gentleman. Indeed the supposition that the oxygen of water can, by combining with sulphur or charcoal, set it on fire, is directly contrary to all the phænomena of combustion and even of chemistry.

3. *A System of Theoretical and Practical Chemistry, in two vols. By* Frederick Accum, 1803.

This book is remarkably well printed, in a very neat letter, and upon good paper. The plates too, though not numerous, are distinct, and very well executed; but upon the composition and execution of the work itself we cannot bestow so much praise.

It is totally destitute of arrangement, excepting that the facts are arbitrarily reduced under 109 heads, called *parts*, and that the greater number of these

* Journal de Chimie, t. 6s.

parts include only a single substance. With respect to the arrangement of these parts the author seems to have followed no plan, but to have placed them one after another just as chance presented them. Hence the book must be, in a great measure, unintelligible to those who are ignorant of chemistry.

Another circumstance, which struck us forcibly, is the unmerciful freedom with which this author has transcribed from other books. We have run over the system with this particular object in our eye, and pledge ourselves to prove, that in the whole two volumes, consisting of 763 octavo pages in a small type, there are scarcely 50 which have not been almost word for word transcribed from other books. Probably there are not even twenty pages of original matter; but we choose rather to err on the safe side. Nor is the number of books which the author has had recourse to great. More than a third of the whole has been transcribed from Dr. Thomson's late System of Chemistry, so slavishly, that the very typographical errors of that work have been transferred into Mr. Accum's system. This may be the mode of composing *original* works in Germany, but it is not quite so customary in England, and therefore it has excited our surprize a little.

The mode of making individual experiments is in general described with considerable accuracy in this treatise; it may therefore be of service to those who already have a general knowledge of chemistry, and wish to acquire the habit of experimenting.

NOTICES.

In the sitting of the Galvanic Society at Paris, held in February last, four committees were appointed,—1. To collect facts relating to Galvanism; 2. To repeat experiments on behalf of the general theory of Galvanism; 3. To apply Galvanism to the animal system and cure of diseases; 4. To collect and publish the result of experiments, made in the different departments of Galvanism. *Lespinasse* and *Gaborial*, counsellors of state, were appointed presidents, and *Larcher Daubencourt* secretary of the first committee; *Guillotin* and *Dudanjon*, presidents, and *Bonnet*, secretary of the third, and *Lemercier* and *Champré* presidents, and *Lerucher Lafenterie*, secretary of the fourth. The second committee, composed of *Guyton*, *Morveau*, *Abbeville*, *Paroisse*, *Gautherof*, *Legallois*, &c. is not yet completely organized.

Dr. *D. I. Schaul*, professor of chemistry and physician at Cassel, is preparing for the press a History of Galvanism, in a physical, chemical, and medical point of view, from its first discovery down to the present time, including a circumstantial account of the various diseases, in the cure of which the author has applied galvanism with the most complete success, and of the best mode of its medical application.

In the Mologian circle of the department of Iaroslaw, on the banks of the Mologa, and the estates of Count Alexei Iwanowitsch Puschkin, two horns, a head, and several bones of an unknown animal of immense size have lately been found. The head is 2¼ ells Leipsic measure* in length, and at the forehead 1 ell and 8 inches thick. The horns resemble those of oxen, are upwards of 4 ells long, and their diameter in the thickest part amounts to nearly an ell. The rest of the bones are of the same gigantic size. Our readers will perhaps recollect that *Gmelin* relates in his travels, that heads with horns of an enormous size have also been found in Siberia. He took himself a head of that description with him to Petersburgh, which was probably deposited in the museum of that place. It would be interesting to compare that head with those discovered in the Mologian circle, in order to ascertain the point, whether they belong to animals of one and the same species. At all events the above discovery affords additional evidence against Daubenton, Buffon, and other naturalists, that there formerly existed species of animals, which are no longer to be found.

*Two Leipsic ells are nearly equal to one English yard.

The celebrated German astronomer, Mr. Schroeter, high bailiff at Lilienthal in the Duchy of Bremen, has lately published the second volume of his Selenotopographic fragments, or topographical observations on the moon, a work which abounds in discoveries the most interesting, and remarks the most ingenious and important.

Doctor *Hesse*, a native of Erfurt, the capital of Thuringia in Upper Saxony, who introduced the vaccine inoculation at Constantinople, and in several other parts of the Turkish dominions, has been appointed first physician to the Hospodar of Wallachia with a salary of 6000 piasters *per annum*.

In the sitting of the Royal Academy of Sciences at Berlin, of the 25th of February last, Professor Daenzel of Hamburgh, a very able mechanician, read a memoir on the mechanism of his invention to direct the course of air-balloons, and displayed that mechanism in one of the halls of the academy. Garnerin, who happened to be at Berlin at that time, is said to be a warm admirer of Mr. Daenzel's invention.

The National Institute of the Italian republic at Bologna has appointed the celebrated physician *Moscati*, president, and *Scurpa*, the anatomist, and *Dandolo*, the chemist, secretaries of the institute.

Cavaliere *Landolina* at Syracuse has discovered a method of manufacturing good writing paper of the "*Papyrus Nilotieus*," which grows in great plenty in Sicily, and obtained of the king of Naples a patent, securing to him exclusively the right of making that paper.

LITERATURE.

1. *Spanish Literature.*

AS one principal object of our Journal is to give a distinct View, and occasional Notice of the state of *Foreign Literature*, we shall now present to our readers, the only good account that has yet appeared of *Spanish Literature*, as given by the Rev. Edward Clarke, in his letters on the Spanish nation, published in 1763. It has long been the wish of many literary men, that this excellent account was reprinted, as little of consequence has since appeared from the Spanish press. In the meantime the following summary of it is given.

"In regard to learning, and the belles-lettres, *Spain* evidently labours under two material disadvantages: which are, the want of a liberty of the press, and the being subjected to the censure of the Inquisition.—Is it not better for the public, that a million of monsters should come into the world, which are sure to die as soon as they are born, than that one *Hercules* should be strangled in his cradle?

It is a matter of more surprize to me, when I consider things in this light, to find that the Spaniards are advanced so far as they are in arts and sciences, than to wonder, that they are got no farther. If we add to this, the power and uncontrouled licence which

the Inquisitors, or Dominicans, have to censure works printed there, and if they please, to chastise and punish the authors, it would surely make a full apology for *Spain* in this article. I know not well how many *licences* a book must have before it can actually pass the press, but I think at least three. It is usually read by as many Censors, and is carefully cleansed by the Catholic sponge, before it falls under the eye of the public. The Inquisition never grants any licenses; reserving to itself the freedom of condemning or absolving afterwards, as it may judge expedient. The art of this management is apparent. The Index of the *Libri Prohibiti*, published by the Holy Office, is now increased to two large volumes in folio; and a man must fairly turn over all that work before he can well know what he dare read. The Classics that I opened in the royal library at Madrid, were anathematized in the Title, with these words, *Auctor Damnatus*; and many whole Prefatory Discourses were erased and blotted out, because, as the librarian told me, *Ils sont contre notre religion.* I have been told by a Spaniard, a friend of mine, that the *Dominican* Library, consisting only of books which they have seized, and which of course are forbidden, is one of the finest in *Madrid.* I have heard many of them own, that the prohibited books were generally the most worth reading. One in particular told me, that as Father *Paul's* history of the Council of Trent was forbidden *to be read any where upon earth, he took it with him, and read it at sea.* It is no uncommon thing here to see the works of our *Locke*, *Newton*, and *Bacon*, those immortal glories of Human Nature, shut up in durance. But how should it be otherwise, when, as *Boyle* tells us, in an extract from *John of Salisbury*, that Pope Gregory VI. not only banished mathematics from the Court, but burnt a Library of Heathen Learning, in order to give the Scripture more authority? *Erasmus* found the weight of this millstone upon the neck of Science almost insupportable, at the time that he was making such noble efforts for the revival of Letters. And the ignorance, and indolence of the monks, which he so much exclaims against in those days, is very little altered for the better in the present. Few of them, even now, either understand or talk the Latin tongue; and fewer still are employed in studies of real or useful learning; they are chiefly confined to the narrow limits of the scholastic writers, the polemic divines, and Thomastic or Augustine theology. I speak only in general, for doubtless there are some exceptions, such as a FLORES, a PONCE, a BURRIEL, or a FEIJO; but these are rare, and shine like lamps in sepulchres, amidst the numerous cells of those useless ecclesiastics. Great part of this dearth of scholars is certainly owing to the want of a due encouragement, a restriction of the liberty of the press, and their subjection to the yoke of the Inquisition. And how much they have suffered from these curbs, may be easily gathered from a few facts that have passed in *Spain* only. Poor MIGNEL CERVANTES, the inimitable author of *Don Quixote*, underwent many severe sufferings in combating those triple monsters, prejudice, ignorance, and superstition. The incomparable JOHN DE MARIANA, whose labours and studies have done such lasting honour to himself, and to his country, was confined twenty years in prison, and when he wrote his History, he dared not to bring it down any nearer to his own times, for fear of giving offence. And even within these two or three last years, Dr. Isla, who wrote that exquiste satire, *Frey Gerundio*, upon the monks and preachers of these times, has been persecuted and silenced by the Inquisition for his impertinent wit.

Such being then the true state of the case, we are certainly much obliged to those wits and geniuses in *Spain*, who have had firmness enough to break through all these obstacles, and have produced works, which have made their names the theme of their own countrymen, and respected and esteemed abroad. The COMPLUTENSIAN Bible* has undoubtedly been the best monument to the memory of Cardinal Ximenes, and would atone, if any thing could atone, for the share which he had in establishing the Inquisition. This certainly doubles the merit of such writers, who have been so hardy as to step forth in this country, such as, CERVANTES, COVARRUBIUS, ZANARDO, ZURITA, CABRERA, SANDOVAL, MARIANA, ANTONIO PEREZ, GARCILASSO DE LA VEGA, LOPEZ DE VEGA, CARPIO, ANTONIO DE GUEVARA, CALDERONI, ANT. DE SOLIS, HERRERA, &c.; it makes us regard in a much higher light such men as ANTONIO AUGUSTINO, VILLALPANDO, L. RAMIREZ DE PRADO, SANCTIUS, and others.

We have omitted what Mr. Clarke says respecting the state of theology in *Spain*, and proceed to his view of the *Spanish historians.*

In history, the Spaniards have many valuable writers;—The detail of particular wars, as that of *Granada*, between PHILIP IV. and the MOORS, by MENDOSA, said to be a masterly work; the relation of the succession-war or partition of the Spanish monarchy, by SAN FELIPPE, &c.; the ecclasiastical history of *Spain*, by Father HENRY FLORES, in 15 volumes, 4to. &c.; the history of particular cities, such as *Toledo*, *Seville*, &c. Their great antiquarians are FLORIO OCAMPO, AMBROSIUS MORALES, MARIANA; REQUESENDIUS for those of *Portugal.* But I cannot find, that any writer of credit (for some have attempted it) has been yet bold enough to take up the thread of their general history, where MARIANA left it off, that is to say, with FERDINAND and ISABELLA (for the supplement and continuator Miniana I don't consider) and bring it down to these times. Perhaps they do not care to attempt it for fear of offence; and another reason may be, that the king has absolutely forbid any of his subjects to write the history of Charles V. which I suppose is owing to some circumstances relating to religion and that prince, which might be too delicate to touch upon.....

In poetry they have many writers: such as D. AL. DE ERCILLA, the PRINCIPE ESQUILACHE, ANT. LOFRASO, J. RUFO, PINEDA, ZIGUEROA, ANTO.

* This was the first *Polyglot* ever printed, and was done at the expence of the Cardinal, then Archbishop of Toledo. It was about four years in printing, from 1514 to 1517, but not published till 1520, when it came out in 6 volumes, including the Lexicon. It was printed in four languages, the Hebrew, Chaldean, Greek, and Latin. This served as a model to that of Mr. Walton, which is more useful and exact, and to that of Mr. Le Jay, printed at Paris, with many expensive ornaments.

DE NEBRIXA, the two VEGA's, GARCILASSO, and LOPEZ; CALDERONI, BARRIOS, GONGORRA, and others. But as to a complete list of them, I have never been able to find one; and am much less qualified to decide of their respective merit.

(To be continued.)

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2. *Puteschestwie w potawennaja Rossiu, &c.—Travels in South Russia, edited by Vladimir Ismailove. Moscow.* 2 vols. 8vo. 1802.

Ismailove, a young Russian nobleman, who in the title page of the volumes now before us, modestly assumes the title of editor, but is the real author of these interesting travels, has set an example, which, were it imitated by his countrymen, could not but diffuse very instructive lights over many parts of the vast Russian empire, which are as yet but little known to us. It is, except Samarokow's travels in Bessarabia and the Crimea, mentioned in the fourteenth Number of the Literary Journal, our author's work is the first attempt of that kind; for the travels of Pallas and the other academicians were undertaken by order of the Empress Catharine II. and, besides, those learned travellers were mostly foreigners.

Our author sets out from *Moscow*, and proceeds by *Serpuchow* to *Tula*; the situation of which place, in a valley, or rather on the declivity of two heights, is uncommonly beautiful. He describes the manufactory of arms, the workshop of Mr *Dorog*, an ingenious German mechanician established at Tula, and the cathedral, but makes no mention of the arsenal, which is not only one of the finest buildings of the place, but also deserves peculiar notice on account of the great variety of arms which it contains. *Orel* and *Kursk* are the next towns he visits; the former is a large place, but in general badly built: the latter, which contains many fine buildings, is pleasantly situated in part on a mountain, the foot of which is washed by the *Tuskar*. Our author then enters Russia Minor, where he finds among the country-people more cleanliness, better habitations, and in general an appearance of greater prosperity, than among the rest of the Russian peasantry. The peasants in Russia Minor raise but little corn, their lands being for the most part laid out in meadows and pastures for their numerous cattle. Their manners are simple and uncorrupted. Conjugal faith is strictly observed, but unmarried women know of little controul, and resemble in general, in our author's phrase, *Lacedæmonian Virgins*.

The men do not let their beards grow, like the inhabitants of Great Russia, but shave not only the chin and lips, but also part of the fore-head; their physiognomy is lively and interesting, and they seem very fond of the beauties of nature, for their villages are situated, almost without exception, on the most charming spots. They have much taste for music, and the violin is their favourite instrument. *Kiew* affords a fine view at a distance; the *Dnepr*, the variety of heights and valleys, and the numerous spires of churches and convents form a striking prospect, which, however, vanishes at a near approach. Kiew is visited by great numbers of pilgrims, who flock thither from all parts of Russia; in summer their number frequently amounts to 60,000. Field-marshal Rumanzow is buried in the cathedral, a beautiful and magnificent building. The catacombs, which contain upwards of 100 dead bodies, among which is that of *Nestor*, the annalist, in a state of high preservation, are not stone vaults, but merely dug in the ground. The manners of the inhabitants of Kiew are truly patriarchal, tinged with an air of profound devotion, common to all conditions and ages. The nobility, however, begin to imitate the manners of the capital, and the public walk in the court garden seems a close copy of the promenades at Petersburgh and Moscow. *Perejeslaw*, at a short distance from Kiew, is the native place of *Cheraskow*, the celebrated author of the Rossiad and Battle of Tschesme. *Poltava* calls to our author's recollection one of the most important periods of Russian history. In memory of the decisive battle fought in the vicinity of that city, a pyramid has been erected in Poltava; but this monument, which stands in a narrow street, and is beginning to fall into ruins, is by no means worthy of the great event which it is intended to commemorate. The field of battle is near the village of *Semenouka*. The situation of Poltava is beautiful; it is inhabited by Cozaks, natives of Russia Minor, and Jews. Between *Krementschuk* and *Cherson*, our author met with numerous swarms of locusts, which did considerable mischief in the neighbourhood. Eight miles from Cherson an obelisk of white stone marks the spot where *Howard's* remains are interred. Cherson is in general a well-built town, and its population, consisting of Russians, Polanders, Germans, Frenchmen, Englishmen, Greeks and Jews, is not inconsiderable. At *Nikolaew*, Mr. Ismailove paid a visit to Mr. *Aforin*, a pupil of Linnæus, and a very worthy man, who at an advanced age lives there in philosophical retirement. A few years since a conductor was destroyed at Nikolaew by the populace, *on suspicion of its being the cause of a drought, which lasted rather an unusual time*. From *Otchakow*, which lies still in ruins, our author proceeds to *Odessa*, his description of which place perfectly agrees with that extracted from Samarokow's travels in the fourteenth number of the Literary Journal. From Odessa he returns to Cherson, and makes on that occasion several interesting remarks on the breed of sheep in the neighbouring steppes, on the wild race of horses in the vale of Ingul near Cherson, on the fruitfulness of the soil of the steppe, &c. which the limits of our Journal prevent us from inserting in this place. From Cherson our author pursues his journey to the Crimea by *Kilikermen*, draws a pleasing picture of the romantic situation of *Achmetschet*, and relates "*con amore*" the sorrows of a Crimean Werter, a young Russian officer who destroyed himself with a "Tartarian dagger" a few days before our author's arrival at Achmetschet, from excessive fondness for a daughter of the celebrated professor Pallas, who has retired to that place.

The second volume begins with an account of Mr. Ismailove's reception at the house of that truly venerable veteran of natural science, of whom he draws the following picture:—"Notwithstanding his advanced age, Pallas is still very lively and active. His frugal mode of life supports his declining health, enfeebled by long and painful travels. His appearanc

taken in the whole is not very engaging, but his physiognomy is pleasing, and his eye bespeaks ingenuity and mildness. His speech, simple as nature which he studies, is gentle and attractive. Passionately fond of travelling, he assured me that he never felt more happiness, than on his travels. No person talks less of himself than he does; it would seem, that he alone is ignorant of the celebrity of his name. Yet let it not be supposed, that this noble-minded man is exempt from grief, sheltered from the storms of life by philosophy and virtue. Stupidity, envy, and malice are at work, to disturb the peace of his latter days. "Pray, send us often travellers from Moscow," said Pallas to our author, when he took leave of him—an expression which finishes the interesting picture of that great and good man.

Fanagoria, a city founded in 1786, in the peninsula of the same name, which is also called *Tamon*, consists as yet merely of a fortress, and has no other inhabitants than a regiment of soldiers. The stone found here, which, according to the explanatory account given of it by Count Mussin-Puschkin, decides the controverted point of the situation of the principality of *Tmutazakan*,* lies near the garrison-church under a wooden roof, surrounded with iron rails. The hill, which ejected flames some years ago, is still smoking, and emits a current of black naphtha. At *Astrachan* our author arrived at the time of the vintage. Upwards of twenty different species of grapes are produced in the vineyards, among which he gives the preference to that which is called *Kischmisch*. Mr. *Sacharew*, governor of Astrachan, is a zealous friend of Russian literature. *Sarepta*, a colony of Moravians in the vicinity of *Tzarizin*, has attained a high degree of prosperity, and consists of 500 members, under the management of a director and master of police. The village of *Schonbrunn*, a few miles from Sarepta, is also inhabited by Moravians. The last letter is written from *Bronnizij*, where Mr. Ismailove terminates his travels, and closes his narrative rather in a quaint manner, by the following remark in French—"*S'ils n'ont fait ma gloire, ils ont fait mes délices.*"

We shall close our account of his publication by observing, that although correct statistical information of the parts he has traversed, would have rendered his work still more interesting, yet the perusal of it in its present state, has afforded us much pleasure and instruction.

* See Tooke's Hist. of Russia, vol. ii.

3. Svenska Akademicas Handlingar, &c.—*Memoirs of the Swedish Academy, &c. Vol. I.*

Gustavus III. founded this Academy after the plan of the late "*Académie Françoise*," for the purpose of promoting the culture and perfection of the Swedish tongue, of which there exists as yet neither a complete Dictionary nor Grammar. The former cannot soon be expected; but in the meanwhile a material part of the Grammar, Orthography, is treated of in this volume, which is published in the name of the Academy, consisting at present of 18 members, and dedicated to the king of Sweden.

In the Preface, the Academy declares, that in purifying the Swedish language, and laying down certain rules of Orthography, it will constantly keep in view the following leading principles:—1. Not to change whatever has been sanctioned by usage; 2. Always to attend to the harmony of sound; and 3. To perfect and enrich the language.

As the memoirs which treat of these three objects, relate exclusively to the Swedish tongue, and therefore can be interesting to those only who are acquainted with that language, we shall confine ourselves to observe, that one of the most material points, discussed and determined in those memoirs, is this, that the Academy will not admit any foreign words without subjecting them to a Swedish termination and declension. Thus the Swedes, making use of the French word *talent*, are to write *talang*, and in the plural *talangar*, &c. &c. From the pure and correct Swedish style, foreign terms are to be entirely excluded.

4. *Some Account of the University of Pisa.*

The following public institutions have lately been united with the College of Natural Science and Medicine.—1. The Physical Museum; 2. The Observatory; 3. The Botanical Garden; 4. The Chemical Laboratory; 5. Surgeon's Hall; and 6. The Hospital.

The physical museum contains a great variety of apparatuses for making experiments, in order to investigate and ascertain the merits of physical theories. The observatory is constructed after the plan of that of Bologna, and supplied with numerous instruments for astronomical observations. *Anthony Slop of Cadenberg*, is at present director of the observatory. The public library and the hall, where the literary committee meets, are in the same building.

Opposite to the observatory is the botanical garden. It is one of the most ancient in Europe, for it was founded in the year 1544. Dr. *George Sarti*, the present director of the botanical garden, delivers there every year, in spring, a course of lectures on botany, after the system of Linnæus. United with the botanical garden is a museum of natural history, which Dr. Sarti has enriched with numerous productions of Tuscany. The chemical laboratory was founded in 1781, by the late Emperor Leopold, and possesses a great variety of chemical preparations, made by Dr. *Ant. Nic. Bronchi*.

Angiolo Fabroni, president of the University of Pisa, has given in his resignation, and is succeeded by *Franc. Vacca Berlinghieri*. *Malanima*, professor of oriental languages, and *Pavoli*, professor of mathematics, have also resigned their places; the latter has been replaced by *Brunazzi*, but the chair of the former is still vacant. *Catellacci*, formerly professor of anatomy, delivers at present lectures on zootomy; and the celebrated *Mascagni* fills the anatomical chair. Experimental natural philosophy is taught by *Louis Melegari* of Genoa. The place of professor of logic and metaphysics, vacant by the death of the late professor *Christ. Sarti*, has been given to Father *Piacentini*, a Carmelite. After the death of professor *Antonioli*, *Fantoni* surnamed *Lubindo*, has been appointed professor of polite literature, and *Abbate Lenzini* has obtained the Grecian chair.

5. Some Account of several eminent Polish Literati.

The calamitous fate of Poland could not but have the most destructive influence upon the literature of that country. Several protectors and men of letters fled from their native land to live in peace in foreign dominions, and others died. Some remain, however, who, although dispersed, and destitute of a point of union, deserve to be known to our readers. We shall divide this article according to the provinces whither these Literati retired after the dismemberment of their country.

In the Russian part of Poland, we find in the city of Wilna, 1. *Trebecki*, the first poet of Poland, and late Lord Chamberlain of *Stanislaus Augustus*, who has exchanged his place of librarian to the library *Zaluski* at Petersburgh, for a canon's prebend at Wilna. 2. *Jundzil*, the celebrated botanist, who in 1791, published at Wilna, a Lithuanian Flora in the Polish language. 3. *Andrew Sniadecki*, who edited at Wilna, in 1800, a Compendium of Chemistry, written in the Polish tongue. And 4. Count *Thaddæus Czacki*, ci-devant Starost of Novogorod, who these ten years has been engaged in the composition of a history of the legislature in Poland and Lithuania, in the Polish language, the publication of which is solely retarded by the plates which belong to the work not being yet finished. He also possesses a very considerable library, which contains a great number of manuscripts, left him by king Stanislaus, by the Primate of Poland, and the learned bishop *Naruszewicz*. Count Czacki has likewise succeeded in establishing at Warsaw a Literary Society for the preservation of ancient monuments of the Polish language, history, and literature. In this laudable undertaking he has experienced the powerful support of Counts *Stanislaus Potoczki*, and *Anthony Stadnicki*, and of the Abbé *Dmoshousky*. The latter has published a Polish translation of the Iliad, which will be followed by another of the Odyssey; he has also commenced, in 1801, the publication of a Polish Literary Journal, which continues to be regularly published at Warsaw. In order to familiarize the Polanders with the German language, and the Prussian officers with the Polish tongue, the Rev. J. L. Cassius, rector of Lissa, has published a Polish and German grammar; and it appears by letters from Berlin, that Nathan Bucki has been appointed by his Prussian Majesty, professor of the Polish language in that city.

In the Austrian part of Poland, called East and West Gallicia, the two universities of Lemberg and Cracow have afforded an asylum to several men of letters. The general depôt of the literary documents of Poland has been removed to Vienna, where they are reposited in the library of Count Joseph Teczyn-Osselinsky, who is at present engaged in the composition of a history of ancient Sarmatia, and of king Sigismundus I. His secretary, Mr. Linde, is composing an Etymological Dictionary of the Polish language, which is to be revised by Count Osselinsky, and experiences the powerful support of Prince *Adam Czartorinsky*, the illustrious and zealous protector of the sciences and arts.

John May, bookseller at Cracow, continues to publish new editions of the best works written in the Polish language. He edited in 1795 and 1796 a political and literary journal, under the title of the "Monitor," and publishes every year a Polish Almanack. He has lately announced a Polish translation of Volney's Travels in Syria and Egypt.

Hyacinth Przybyloki, librarian at Cracow, has published an excellent translation of *Gesner's* "Death of Abel," and a new edition of *Peter Kochanoesky's* Polish translation of "*Orlando Furioso*," revised after a manuscript, found in the library of Count Czacki.

Hieronymus Fuszinsky, a prebendary at Lemberg, and one of the most eminent Polish orators and poets, has composed a history of the art of printing in Poland, which is in the press and will speedily be published.

6. DRAMATIC CRITICISM.

The Marriage Promise.

A new Comedy, entitled the *Marriage Promise*, written by Mr. Allingham, author of "Fortune's Frolic," was performed for the first time at Drury-lane Theatre on Saturday last. We shall, as briefly as possible, give a sketch of the fable. The Hero of the piece, *Charles Merton*, accompanied by *Sydney* a dissipated young man of fortune, returns from his travels to the mansion of his deceased father. After dining with his friend and *his steward Tandy*, an eccentric character, he strolls on his estate, and, "hot with the Tuscan grape," offers an insult to *Mary Woodland*, the daughter of one of his tenants, whom he meets in his walk. In his moments of reflection, ashamed of his conduct, he resolves to atone for the offence by *marriage*. In an intervening scene are introduced *Mrs. Harvey*, a gentlewoman in reduced circumstances, and her daughter *Emma*; they have just received intelligence of the loss of their small property by the failure of a *gambler in the funds*, at the same time that the lease of their little farm, which had been granted them by the late *Mr. Merton*, expires. In these distressing circumstances *Emma* determines to apply to the *young squire*, whose arrival in the village had just been joyfully announced, for a renewal. *Charles* falls in love with her, and consequently regrets the precipitancy of his "Marriage Promise" to *Mary Woodland*. Another character in the piece is *Consols*, a man who having amassed a considerable property, is tired of getting money, and amuses himself, under the garb of poverty, by seeking for objects worthy of his charity. In one of his rounds he enters the house of *George Howard*, a young farmer, and his mother. Here he meets with a treatment as hospitable as their means will afford, and has determined to repay their kindness by a considerable present, when he discovers in *Mrs. Howard*, a daughter who had many years before deserted him. In the mean time *Charles Merton* discovers, from a paper left by his father, that he (the father) had had a wife living at the time of his marriage with his mother, but is unable to learn who she was or what was become of her. At this time *George Howard*, attached to *Mary Woodland*, and incensed at the insult she has received, calls on *Mr. Merton* for an apology for his conduct. His warmth occasions a duel, the ill effects of which are prevented by an old servant of *Charles Merton*, who acquaints him that *George Howard* is his brother. *Mr. Merton* then receives the hand of

Emma, and *George* that of *Mary Woodland*, and thus *love*, *a duc'*, and *marriage* are, as usual, the materials of the piece.

This comedy possesses more of what is called, in the old language of the drama, *plot*, than any we have seen for some time; the interest is well kept up; the dialogue is not entirely devoid of humour, and of sentiment there is too much, especially of that kind, which *more Germanorum*, confines all merit and all benevolence to the very lowest orders of society. We are surprised that no attempt is made to suppress this characteristic of modern comedy, than which nothing can tend more forcibly to the overthrow of social order. That a young man of fashion, however virtuous, should think the kissing one of his tenant's daughters in a drunken frolic, so great an insult as to be expiated by an offer of marriage only, is highly improbable. His falling in love with Emma Harvey at first sight, and his associating with so dissipated a youth as Sydney, when his own sentiments were so delicate, are no less improbable. That a young man, however high-spirited, should be Don Quixote enough to accept the challenge of an insolent young farmer, instead of taking him before a magistrate for a breach of the peace, is a most strange deviation from probability of manners. Neither can we see any motive for Howard persevering in the duel with Merton, after he has not only applauded him for his generous offer to his mistress, but has actually strongly persuaded her to accept it. With a complex plot and too much incident to work upon, the piece is incomplete. Several of the characters were unnecessary, and several of the scenes might have been omitted with advantage. Instead of these, one might have been introduced, capable of exciting very considerable interest. When the offer of marriage is announced to Mary, she is distressed at it, her heart being pre-engaged to George Woodland, her father therefore proposes an interview between her and Mr. Merton. Had this taken place, the embarrassment of the parties might have produced an affecting scene, in which the real characters of each might have been better developed than by any other means.

Notwithstanding these defects, the play has considerable merit, and keeps the attention awake till the end. The character of Consols is, we think, new, and the novelty is natural; we cannot say the same of Tandem. The piece is not likely to be so successful as that of "John Bull" at the other theatre, though the moral is certainly better; the author, however, has every reason to be satisfied with the reception it met with.

NOTICES.

We find by the report of the Committee for conducting the laudable subscription now raising for the support of the female orphan children of the late Dr. Garnett, that after defraying the expences of printing the Doctor's posthumous works, the sum to be invested amounts at present to no more than £900, a provision so far short of the intentions of the subscribers, that we most sincerely recommend the case to the attention of the liberal and benevolent. The posthumous work, which embraces a course of lectures on *Zoonomia, or the Laws of Animal Life*, is printing in a very handsome manner at the press of the ROYAL INSTITUTION and will form a quarto volume of the value of one guinea, a copy of which will be given to each subscriber.

Mr. Todd, to whom the literary world is so much indebted for a late classical edition of Milton's poetical works, who had constant access to the library of the late Duke of Bridgewater, has not only had the same indulgence continued by his noble successor; but has besides the choice given him of two valuable livings. The first circumstance must give pleasure to every friend of literature, the last to every man who esteems a truly valuable member of society.

The Pen of Mr. Rogers, author of *the Pleasures of Memory, &c.* is we hear, at present employed on a Heroic Poem; the subject, the voyage and discoveries of Columbus.

The Rev. William Tooke is employed in preparing for the press some additional volumes of the works of the famous Zollikofer.

Sir John Sinclair is employed in writing an account of the administration of Mr. Pitt. He is also making collections for a valuable treatise on Longevity. With the rest of our countrymen we much regret that this gentleman has not again been called to the head of the Board of Agriculture. His being obliged to leave it was a national loss.

Early in May will appear Poems from the Portuguese of *Camoens*, with remarks on his life and writings, by *Lord Viscount Strangford*.

Mr. Shaw, the architect, exhibits this year a beautiful drawing, containing a bird's-eye view of the magnificent Circus about to be constructed at St. John's wood, between Paddington-road and Hampstead.

A very fine painting, from the pencil, as we are privately informed, of Mr. Bertie Greatheed, is to be exhibited at the Royal Academy. The subject, of the Pensieroso kind, is the Cave of Despair. The production is honorary.

During the period of Mr. *Hastings'* government in *India*, some *gold Darics* were dug up on the banks of a river in *Benares*, amounting to about 170. These invaluable Coins had an archer on their reverse: they were immediately sent by the governor to the directors of the *East India Company*; but what was his astonishment, when on his return to Europe, Mr. Hastings found they had sent these precious relics to the smelting pot. Their intrinsic value was only about thirteen shillings.

On Monday last commenced at *Leigh* and *Sotheby's*, the sale of Mr. R. Grave's Historical Books and Tracts, particularly relative to the rebellion in 1645. One lot of Tracts contained near 3000 different pamphlets relative to that eventful period. There were also some original state papers, and deeds, with autographs of many eminent characters.—The sale closes on Tuesday, April 26.—On Monday, April 18, the sale was well attended. *Dr. Ayscough* of the museum, *Mr. Hill*, *Mr. Woodhull*, &c. A large collection of *Historical and Miscellaneous Tracts* in 31 vols. 4to, was sold for £5, 5*s.*—*Penry's Supplication to Parliament*, 1588, was bought by Mr. Heber, for £1, 10*s.* as was also *The Wits Common Wealth*, 2 vols. 1684, for £3.—An imperfect copy of *Calvin's New Testament*, 1557, went for 10*s.* 6*d.*—*The Night Search*, a poem, by *H. Mill*, frontispiece by Paine, 1662, £1, 1*s.*—*Bibliotheca Chalcographica, Effigies a Theod. de Bry*, (several English portraits) Francos, 1650, £3 18.—*Meursii Athenæ Batavæ cum effig:*—Lug. Bat. 1625.—First edition of *Milton's Paradise Lost*, 1669, 9*s.*—*Pierce Plowman's Vision*, black letter, by Robert Crowley, 1550.—*Sir John's Hayward's Sanctuarie of a troubled Soule*, frontispiece with his head, by Payne, fine old binding, 1623, &c. 15*s.*

Tuesday, April 19. Among other persons *Mr. Malone* attended.

Higins' Mirour for Magistrates, 1610, went for £1, 16*s.*

—*The most ancient and famous History of the Renowned Prince Arthur, King of Britaine*; as also all the noble accounts of his *valiant Knights of the Round Table*, 1634. *The Famous History of the Seven Champions of Christendom*, 2 Parts, 1670, 2 Vols. in one, were bought by Mr. Walter, for £2. 13s.—*Clyke's Royale Elegie* on the Renowned *Prince Edward* the sixth, 1610, was knocked down to Dr. Burney, for £2, 12s. 6d. Who also bought *Several Proceedings in Parliament*, from 1640 to 1654, 7 Vols. 4to. for £2. 9s.; and *The Intelligencer, the Perfect Diurnal*, and other *Papers*, from 1642 to 1654, for £6.—*Astley's Collection of Voyages*, 4 Vols. 4to. was bought for Mr. Hewett, at £3, 10s.—*The Harleian Miscellany*, 8 Vols. mostly in numbers, with some bound, went for £15.

Mr. R. Heathcote's sale of duplicates began yesterday at Jefferies'. Among other curious works we observed a set of *Voltaire* 70 tom. Beaumarchais edition, the copy picked for Madame Beaumarchais.—Queen Jane's of France matchless MSS. on vellum, with upwards of 200 fine miniature painting. This sale closes the April 26. We shall give some further particulars of this sale in our next.

Cambridge.—The following are the subjects for the Bachelors' prizes for the present year.

Senior Bachelors.—Quantam commoda litteris hæ manioribus oriri possint ex veterum monumentis nuper Egypto patefactis?

Middle Bachelors.—Utrum doctrinæ plus adjumenti Græco, an Latino sermone accrevrent?

We learn by a letter from Dresden of the 12th of last month, that *Delphine*, the last literary production of the Baroness Stael von Holstein, has been prohibited in the electorate of Saxony on pain of 100 rix-dollars. The same letter informs us, that two German translations of Mr. *Percival's* account of the island of Ceylon, have at the same time been announced in the Universal Literary Gazette.

Mr. Joseph Márton, an eminent Hungarian literator, has lately published a treatise, entitled, *A Magyar Lexiconnak szukseges, &c.* Observations on the want of a good Hungarian Dictionary, and the best method of compiling it. We notice this publication, which proves that the Hungarian dictionary published by *Pariz Pápai* is both incomplete and incorrect, chiefly with a view of pointing out to our readers the author's meritorious and truly exemplary exertions to give to the Hungarian dictionary, in the composition of which he is engaged, the highest degree of copiousness and correctness. Not only has he carefully studied all classical works, written in the Hungarian tongue, both ancient and modern, visited the workshops of artificers and artists, to obtain correct information on the true sense of technical terms, and engaged other Hungarian literati of distinguished eminence to revise and perfect his work, but also made several tours through Hungary and Transylvania for the sole purpose of collecting and examining into the various dialects of the Hungarian language spoken in the different parts of the above countries.

The beautiful statues and antiques, which formerly stood, as it were, concealed, at least unknown and unseen in the palace of Michaelof at Petersburgh, have lately been removed to the Taurian palace, where the present Emperor intends to reside in spring and autumn.

MANNERS.

IN our last Journal we adverted to the boldness of our attempt to delineate the manners of the age; and we become more convinced of its many difficulties, when we inspect the various communications of our correspondents. Extensive as the subject is, some of these wish to include almost the whole duty of man under the same head, and contend that as every thing is guided by fashion, *ergo*, there is a fashion in every thing—not only in affairs of dress and decorum of the outward man, but of the inward man; not only in the concerns of public or private amusement, but in those of the serious pursuits of literature.—One wishes us to write a paper on fashionable lawyers, and fashionable physicians, while another suggests, that very much may be made of fashionable divines and fashionable sermons. Undoubtedly the empire of fashion, like another which requires not to be specified, has extended its sway over subjects that formerly enjoyed a quiet, although humble independence, and, whether by fear or conquest, will probably soon carry its usurpations into the interior of mankind, compelling them to think as well as dress and speak, according to the irresistible, and yet unintelligible laws of etiquette.

We have been induced to offer these remarks chiefly by a letter from a correspondent which we shall insert *verbatim*, with such subsequent reflections as may arise from a due consideration of this gentleman's complaint.

To the EDITOR of the LITERARY JOURNAL.

SIR, April 11, 1804.

As I am not much used to writing, I felt myself at a loss to know how to address you, until I read your article of "Manners" in this day's Journal. The proposal there made for a Dictionary of *terms of art* meets with my ideas completely, and I have only to request that the learned gentleman, who may undertake the task, will include in it an explanation of the terms used in *cookery*. You may, perhaps, startle at this request, but as it is made seriously, I flatter myself I can give you serious reasons for it.

'You are to know, sir, that I have the honour to be a member of the Court of Assistants of a very Worshipful Company, the name of which, were I to mention it, would, I am confident, insure my letter a place in your Literary Journal.—But let that pass—Some weeks ago, a grand dinner was given to our court, and to many visitors, by a certain number of gentlemen, no matter who; let that pass also. When I came to the hall, with my usual old English appetite, and plain English understanding, I was surprised to find on each plate, a large and elegantly printed bill-of-fare, of three courses, consisting of nearly one hundred and fifty articles. I immediately took out my spectacles, and began to peruse this "bill of the play" with all the attention in my power, but with no more power to understand it, than if it had been a manuscript from Tippoo Saib's library.—You shall judge for yourself, sir, by a few of the articles, *Legume Pattie, Pullett braized, Petit Pois, Voli Vonti, Rabbits Glassee, Palates Jertinier, Almond Tourt, Gateaux de Mellifeuille, Tipsay Biscay, and Comports,* &c. &c. &c.

Now, sir, I have little doubt that all these things may be very well understood in their own country, but was there no way of *translating* them before they appeared in the hall of a worshipful company of London citizens, who have been used to eat with appetite and with understanding also? I assure you, sir, I was

not the only man who dined in profound ignorance; all around me were equally puzzled, and could not have been more so had the conversation as well as the dishes been conducted in French and Italian. I applied to a very learned member of our court who sat near me, but who assured me his learning was here of no use; the Greeks had no *legume patties*, and the Romans he believed left the *Voli Vonti's* to their degerate posterity, the Italians.—I applied to the Master and Wardens, but they declared that although they had gone through parish and ward offices, and were at length arrived at the summit of their ambition, they knew no more of *Rabbits glassee* and *Palates Jertinier*, than the boy who was bound 'prentice before dinner. The treasurer and renter-wardens looked very grave, and helped one another by signs, and the clerk of the company contented himself with hinting that there were *fictions* in *cookery* as well as *law*, and many of those outlandish gentlemen in the bill were no more flesh and blood than *John Doe* and *Richard Roe*.

In all cases of difficulty we are told to go to our Dictionaries, but what shall we learn there? *Legume*, says the Dictionary, is *pulse*, and what is pulse? Dr. Johnson says, pulse is *leguminous plants*. And what is *Pattie?* not to be found. Here, too, is a Pullett *braized*. Braized ought to be English by the termination, but we look in vain to the best Dictionary. And the same disappointments follow every inquiry into the meaning of *Tipsay Biscay*, *Voli Vonti*, and the rest of this unintelligible diet.

But, I am told, all this is fashionable, and that nothing upon a genteel table must be called by an English name. Here, sir, is the reason why I apply to you as an Inspector, and I hope a Corrector of Manners. Is it to be endured that men, who have grown grey in the service of the city, are to be sent to school at their time of life, to learn what to call for at dinner —to study a nomenclature more perplexing than what has lately been introduced in chemistry; and surely our eatables might as well have been called *hydrogen*, and *carbon*, and *oxyde*, as *Petit Pois*, or *Gateaux de Mellifeuille*, or *Tipsay Biscay?* Is it to be endured, sir, that men who have carried the *practical* part of eating to a greater degree of perfection than those of any nation under the sun, are to be stopt in their career by a *theory* as perplexing as metaphysics?—I assure you, sir, we had two learned divines in company, and one of them a Doctor of Divinity and a Fellow of the Royal Society; and they candidly confessed to us, that they had tried definition and etymology to no purpose. Fine times indeed! when the head of a kitchen puzzles the head of a college, and when a man may die a bishop without knowing what *Palates Jertinier* are! To such men, not to speak of plain men like myself, it must surely be painful to eat in ignorance, or peruse a dinner as doubtful as an ancient manuscript.

You will please therefore, sir, to take this matter into consideration, and only permit me to suggest that if we are in future to have our dinners printed, let them be accompanied with a book of reference and explanation, or what the learned gentleman of our court called a *Catalogue Raisonné*, which I suppose is something that a man can understand. If the table deserves a map, let it be laid down with longitudes and latitudes, that we may know how to steer for fresh provisions, avoiding those "mountains of ice," and "raspberry rocks," on which so many valuable stomachs have split. I have the honour to be, Sir,

Your most humble Servant,

ONE OF THE COURT.

The complaint of this correspondent may be well founded, as far as respects himself, and some of his fellow-members of the worshipful court, but it is one to which we know not how to apply a suitable remedy. Although occasionally permitted to avail ourselves of the practice, we have never had any opportunity of studying the theory of cookery, and indeed it has of late become so intricate and perplexed by the addition of articles and terms for those articles, unknown in former days, that at our time of life it would not be practicable to acquire a deep knowledge of the subject. Cooks now are a rank of men of such importance, that we are afraid to hazard any opinions which may give offence, or to hint that taste and elegance (their usual attributes) may be perfectly consistent with simplicity and plain English. Our correspondent cannot be ignorant that of late years the French and Italian vocabularies have spread over every article of luxury or necessity. Not only are our dinners but our furniture disguised with names of foreign import, many of which are retained long after they have lost their original meaning, and if our correspondent and his friends have been puzzled with *voli vontis* and *tipsay biscay*, they will not be less confounded should some modern improver furnish their hall with *fauteuils*, *cabrioles*, and *bergères*, and illuminate their rooms with *girandoles* or *candelabrums*. It will certainly be very uncomfortable when the gentlemen of the court know neither upon what they *sit*, nor upon what they *dine*. But such are the improvements of the present age, and although the study of the French and Italian languages was originally smuggled into our schools, under the pretence of making us better acquainted with the celebrated writers of those nations, with Corneille and Racine, with Tasso and Dante, with Moliere and Metastasio, the real purpose was to enable us to understand a cook, or higgle with a cabinet-maker.

Under all the circumstances of the case, therefore, we can only recommend the plan suggested at the close of our Correspondent's letter; it will afford some relief to those who are too old to go to school, and if they learn the words by rote, without any meaning, they will perhaps not be much inferior to those who have given them this trouble. R. S.

MR. EDITOR,

In addition to your notice of the disuse of hair-powder among men, permit me to say a word on the rise, progress, and fall of it among the ladies.

How old the custom has been in general, I do not mean to enquire; but forty years ago hair-powder was very seldom worn by young women. I was at the drawing-room at St. James's, during the first year of the present reign before the King's marriage, and the only woman powdered in the court was Lady Berkely, mother to the present Earl. The Queen was

not powdered at the coronation. About the year 1766, the custom of wearing powder was universal, no woman could appear without it. Yet never surely was there so great a sacrifice of beauty to fashion as the hiding one of the loveliest ornaments of woman beneath a nauseous compost of grease and flour; but forsooth it was fashionable, and gave a clean look; fashionable undoubtedly, as entrails about the neck of a woman in Caffraria, and clean as the chimney-sweeper is on a May day, who powders his face to avoid the trouble of washing it. The succession of preposterous ornaments with which the female head was disfigured is in all our memories; but there can be no admirer of the human form divine, as exemplified in its loveliest archetype *woman*, however he may deprecate the school-boy crop of the Bond-sreet lounger, who will not rejoice in seeing this beautiful ornament of the female head restored, and in admiring

———Τριχας
Απαλάς τε καὶ μελάινας
Ὑπὸ πορφυρέοισι χείταις
Ελιφαντινον μετωπον.

"Which," as Parson ADAMS says, "for the sake of the ladies, and those few gentlemen who do not understand Greek, I have rendered somewhat paraphrastically in the vernacular,"

The silken locks which careless break
In wanton tangles o'er the neck,
Now clust'ring hang, and now divide,
Revealing what they seem to hide;
And through the sable ringlets shew
A forehead white as unsun'd snow.

Your's

SENEX.

NOTICES.

It was, says a Correspondent, a most fortunate discovery for the beaux of the present age, that when the enormous size of their cocked hats rendered the conveyance of so necessary an article of dress an object of difficulty, a person should have hit on the new and portable mode, by which it can easily be worn under the arm, or sent with other apparel in a trunk. This ingenious artist, whose name we cannot precise, certainly did live with Mr. Bicknell, at the corner of Old Bond-street; and notwithstanding what other tradesmen may assert, it was from this house, that the present portable cocked hat first appeared.

The Lion Top, at present so much in vogue, or, more elegantly the *Tête de Brutus*, is merely the peruke of former days *reversed*: its thick and bushy honours are taken from the back to the front of the head, and so indefatigable are its admirers, that the hair, in order to have its bristly elegance continued, is rubbed back at night with hard-pomatum, soap, or tallow-candle, according to the station of its possessor.—It was first introduced into fashion under the auspices of those eminent tonsors, the celebrated Sogden and Blake.

The prevailing mode is to dine at the Prince of Wales's Coffee-house, or at Ibbetson's in Vere-street, and then to sup at the Mount. He must be a bold man indeed, who should dare to sup at the former, or to dine at the latter.

It is now necessary, in order to be *accomplished*, that every lady must be musical. Many have made rapid advances on the tambourine, in order to shew a fine shape in all the attitudes of modern modesty, and some even threaten to practise on the trumpet, and the long drum.

A Child's Caul was advertised to be sold in the Morning Herald (April 13), for the price of 15 guineas. A wretched proof that superstition still continues to hold her reign; for, otherwise, how can any one be still so infatuated as to believe, that the possession of this Caul could preserve a person from being drowned.—This augurs very unfavourably against the religious belief of the present generation. A child's caul is to arrest all the operations of Providence, and is believed to contain a *Talisman* that shall act independent of it.

One hundred thousand pounds worth of *French pears*, were imported last year into this country; and it is said, that Fruit nearly to the amount of half that sum, is now spoiling at the custom-house.

POLITICS.

IT appears almost incredible, that the war lately carried on between France and Great-Britain should have reduced the one country to so deplorable a state of weakness, while it was unable to stop the progress of the other in prosperity. It is one of the most extraordinary proofs of the advantages of a good government over a bad one, which was ever exhibited to the world. The persons however who form their opinions on first views, and who are incapable of taking into their consideration more than two or three of the more obvious points of a question, find it difficult to admit the position. And, in fact, the true principles of political economy, the nature and causes of the power of nations are so little understood, that it is unreasonable not to expect erroneous apprehensions to be the most prevalent with regard to the relative situation of different states. The counsel too which men ask of their passions in questions of this sort is a great cause of wrong judgment. National vanity and national jealousy make two nations play the part toward one another of two conceited and frivolous women in a circle of fashion; alternately delighted with thoughts of their own figure in the eyes of the circle, and tortured with the thoughts of that of the rival.

In presenting to our readers the proofs of the weak and impoverished state of France, we have been obliged occasionally, for the sake of communicating more distinct conceptions of that poverty, to advert to the different condition of this country. We have therefore anticipated in some measure, what it would have been necessary to offer now, in proof of the increasing riches and power of Great-Britain. This last proof indeed is not so difficult a task with regard to our countrymen as the former. The latter speaks to their eyes every day; and they have not formed preconceptions very strong in opposition to the opinion. But so strong, among a considerable part of them, is the idea of the power of France, that they are apt to condemn before hearing any attempt to maintain the contrary.

The agricultural prosperity of every country we regard as the first article in its good fortune. In Great-Britain, as no actual survey has been made, we can only appeal to general facts with regard to its improvement in this respect, but these in our opinion are sufficiently expressive to decide completely the question. Have we heard of an extraordinary number of bankrupts among our farmers? Do they form

any considerable proportion of the names which fill the Gazette? The number of farmers in the whole country must at least be equal to the number of all those who employ capital in any other way in this country. But it may be safely affirmed that the number of farmers whose names appear in the bankrupt list does not form one-tenth, does not form one-twentieth of the whole. The steady nature of the business, the smaller number of risks to which it is exposed, is no doubt the chief cause of this. But were agriculture to decline, is it possible that the farmers should not suffer? Now have we heard any complaints among the farmers that their profits have diminished, that their condition has become worse? Certainly not. It is impossible; because the improvements in their condition are visible. Whoever has had occasion to observe the manners of the cultivators of this country at present, and but ten years ago, cannot fail to be struck with the difference in their whole mode of living. The houses of the farmers are in general both enlarged and embellished. In the furniture and accommodations of the inside the improvement is perhaps still greater; and not only every thing that is useful, but every thing that is elegant is to be found there; even the glare of fashion and expence is not unfrequently exhibited with more than second rate imitation. The same revolution is observable in the economy of the table; not to speak of dress. And with these improvements one of considerable importance has taken place in the manners of this important class of men. That roughness of manners with which formerly they were justly reproached is wonderfully altered. A degree of gentleness and civilization, hitherto unknown, marks their social intercourse. Their education is improved The rude sports of the field, in which, with the lords of the manors, they spent great part of their time, have fallen into disuse. And it is now no uncommon thing to find a man with both the ideas and manners of a gentleman superintending the plough.

Is there any appearance that the capital employed in agriculture has diminished during the last ten years? Is any land which was formerly cultivated now permitted to lie waste? Does that which remains under cultivation appear to be less fully stocked? Are there fewer horses, and these less fine and vigorous, to be seen employed on our different farms than formerly? Do the cattle and sheep maintained upon them appear to be diminished in number, and to be more miserably fed than at some preceding period? Are the inclosures and drains any where observed to be running to decay? Are the implements of husbandry more coarse and mean than antecedent to the commencement of the late war? To all these questions an answer directly the reverse is to be returned. More waste land has been brought under cultivation during the last ten years than during any other equal period, and the improvements in agriculture are daily extending themselves to the most remote parts of the kingdom, and pushing themselves into corners where they were before unknown; the improvements in the state of the live stock of the country, both with regard to quantity and quality, strike every observant eye.

If this be the state of the farmers, what is that of the landlords? Are rents diminished? They are increased. Has the price of land fallen? It has risen. The condition of all the persons then concerned in agriculture is improved. Can any thing be a more decisive evidence that agriculture itself is improved? No facts sufficiently general are ascertained from which even a guess can be formed concerning the degree in which the produce of the land at present surpasses that produce at any former period. But that it does surpass it in a very considerable degree the general considerations which we have just now presented, prove, we think, beyond a doubt.

The vast increase of the poor's rates over England seems to indicate that the condition of one class of persons, engaged in agriculture, has not improved. If the public contributions for the poor have within the last six years been doubled, it seems to prove that the reward granted them for their labour must have greatly diminished, instead of increasing; and this could not happen without a diminution of the demand for their labour. In spite, however, even of this formidable objection, we think we are warranted in asserting that the condition of the labourers too of the ground has improved as well as that of the proprietors and the renters. And though this were not the case, it does not prove that the produce of the land has not increased. The fact is known, that the wages of labour in the country have not diminished, but increased during late years, and increased in a greater proportion than the price of the necessaries of life. Such of the labourers therefore as are willing to be industrious must have less chance of needing public aid now than at any former period. If that class of men require more aid than formerly, it must be on this account, that they are less industrious and less frugal. The causes of this moral degeneracy are an object of consideration to the government under which they exist, the most important, the most obligatory, and the most sacred, which can occupy the attention of men to whom the interests of their country are entrusted. These causes have been ascribed almost entirely, by men of the greatest wisdom and virtue, to the operation of the poor laws, which threaten to absorb the whole rent of land in the kingdom, while they destroy almost every motive to industry and sobriety in the lower orders. We have no doubt that we shall surprize those of our readers who are not intimately acquainted with the vestry concerns in the different counties of England, when we quote from a pamphlet of Mr. Arthur Young, published in the beginning of 1801, that the poor's rates were then at 10*s.* to 20*s.* 30*s.* 40*s.* and 60*s.* in the pound, having risen even to 15*s.* in the pound for one quarter.* That was indeed a period of great scarcity and distress; but it is the experience of all preceding periods, that when the rates got up in a time of scarcity they did not fall on the return of plenty. And we believe it has been found that the present occasion has not greatly differed from former ones. It is owing then to the badness of the system employed in England to provide for the unavoidable

* Inquiry into the propriety of applying wastes to the better maintainance and support of the poor, p. 150.

wants of the poor, not to a decrease in the demand for labour, that the poor's rates have risen to a magnitude so pernicious.

But if the proofs of the prosperity of agriculture, the first, and most important of all the sources of wealth, be so clear and certain, still fewer words will suffice to establish the increase of all commercial transactions, because the general facts are more exactly ascertained.

Commerce either supplies domestic consumption, or furnishes the materials of exportation to foreign countries. In all large and populous states, such as Great-Britain, the far greater part of the labour of the people is employed in supplying the wants of one another. The far greater part, therefore, of the industry and business of the nation is destined to supply the domestic consumption. It is only the surplus part which is sent abroad; and that part bears but a very small proportion to the whole.

It is worth inquiring, then, what are the signs of increased or diminished consumption at home, since that is the grand absorber of the produce of industry? The taxes imposed on domestic consumption are not an exact measure of the increase or diminution of the business, to which that consumption gives occasion; since they are not imposed on all the articles of domestic consumption, nor on the different articles in the proportion of the quantity of industry necessary to prepare them for consumption. But as the articles on which they are laid are not likely to be consumed in a greater or less proportion, except in consequence of an increase or diminution of the general riches of the consumers, it is not possible that any change should take place in the use of these, without a similar change in the use of all the other articles of consumption. When the taxes, then, on domestic consumption rise, it is a proof that the general consumption of the country has increased; and that by far the largest part of the industry of the country, that part which is destined to supply the domestic consumption, has increased too. Now it is to be observed how great a part of all our taxes is paid by domestic consumption. A drawback of the whole or the greater part of all duties is allowed upon most of the articles exported. Besides, they are the duties of customs which chiefly affect our foreign trade. But the duties of customs are a mere trifle, compared with those raised on domestic consumption, being scarcely a fifth part of the duties of excise, stamps, &c. A great part too even of the duties of customs, being paid by our coasting trade, are the produce of domestic consumption. So very large a proportion then of the whole produce of our taxes being raised on domestic consumption, it may be taken in the mass as a pretty good criterion of the state of that consumption. Now it is undoubtedly a very extraordinary fact that the produce of the taxes which existed in 1793, not computing the produce of the new taxes imposed during the war, exceeded, on an average of several of the last years of the war, more than one million annually the produce of the same taxes before the war, though new taxes had been added which doubled the general amount. Such are the proofs of the powers of consumption, and of the increase of riches among the general body of the people of this country, even during a war which spent such a mass of national property.

The state of the nation with regard even to that article of consumption which on all accounts is to be regarded as the first, though it is not subject to direct taxation, we mean corn, is itself a most decisive proof of an extraordinary increase of consumption even of the necessaries of life, and is therefore a proof either of a great increase of the number of the people, or of their ability to afford themselves a better and more liberal subsistence. It is allowed on all hands, that the agriculture of this country is not declining; on the contrary, that its produce must be much greater at present than it ever was before. And yet it is proved that we are not able to supply ourselves, as we formerly did; but must derive a great, and a yearly increasing proportion from our neighbours. The consumption, therefore, of corn has increased in the nation to an enormous degree. Nothing can be a more satisfactory proof of the general diffusion of riches and plenty.

The evidence too afforded by the official statements presented to the house of lords upon the motion of lord Auckland, of the astonishing increase of domestic consumption during the single year of peace of which we have had experience, must give the highest satisfaction to every lover of his country. They are particularly valuable on this account, that they present a proof, of which even the grossest understanding can hardly miss to feel the force, of the immense importance of the continuance of peace to the growing prosperity and happiness of the nation. The permanent taxes for the year ending 5th of January 1802, produced £23,829,325. The same taxes yielded for the year ending 5th January 1803, the sum of £26,289,537, being an increase of nearly 2½ millions sterling. The far greater part of this increase is in the duties on consumable commodities. If we allow the odd half million to cover the increase on duties not on consumable commodities, we have two millions of additional taxes raised in the course of last year on the additional trade in these commodities. The duties on taxed commodities, high as they are, can hardly be estimated at more than ⅓ of the whole value of these commodities. This additional 2 millions then arising from these taxes, intimates that trade in the commodities affected by them was carried on during last year to the amount of no less than 20 millions above the preceding year.

If thus satisfactory are the proofs of the vast increase of the internal trade of Great-Britain, a few words will suffice with regard to her foreign trade.

The annual average value of British manufactures exported during four years from 1789 to 1792 inclusive, amounted to	£27,130,000
Do. from 1795 to 1798 inclusive	30,648,000
Value in 1799	38,942,000
Do. —— 1800	39,471,000
Do. —— 1801	41,770,354
Do. —— 1802	48,500,688

We beg in a particular manner the attention of our readers to the extraordinary increase which has taken place during the year of peace. And when they add this consideration to the proofs which we have given

of a similar prosperity in the domestic trade of the country during the same year, we have little doubt they will join with us in setting great value on the blessings which may be expected from the continuance of peace, and in deprecating with the utmost ardour the renewal of the waste and destruction of war.

NOTICES.

Prussia.—The great number of convicts, with whom all houses of correction and fortresses were crowded throughout the Prussian dominions, and the dangerous consequences necessarily arising from multitudes of offenders being thus closely pressed together, induced the Prussian government last year to adopt a mode of punishment, which, among the modern states of Europe, was, until that time, confined to Great-Britain and Russia, we mean, transportation to remote countries. It was first in contemplation to choose for that purpose the kingdom of *Angola* in Africa, and negociations with the Portuguese government were actually set on foot on that subject. But on further consideration *Siberia* was deemed preferable, and an agreement accordingly concluded with the Court of Petersburgh, allowing Prussian convicts to be transported to Siberia, where they are to be employed in the mines of *Nertschinsk*. Pursuant to this agreement sixty convicts under 50 years of age, who seemed the most incorrigible, were last year sentenced to transportation, provided with the necessary clothes and linen, and conducted through the Prussian dominions to *Narva*, where the surviving 58 arrived on the 17th June, were delivered to the governor of that place, and thence conducted to Nertschinsk in 285 days. The expence for each convict amounted in the whole to 200 rix-dollars, about £36 sterl. Their treatment at Nertschinsk is by no means severe. Their daily task does not exceed a half-day's work of a free labourer in the mines, they live in barracks under no rigid controul, and receive the same allowance as the Russian soldiers, every year a new furmantle, and every day they are at work, one pound of meat. They are permitted to marry and build houses for their habitations, and if they conduct themselves in an honest and industrious manner they are promoted to officers' places at the mines and adjoining works. In order to prevent misapprehensions and complaints respecting this new mode of punishment, an ordinance was published on the 7th July of last year, wherein it is enacted, that incorrigible thieves, robbers, incendiaries, and forgers shall be transported to Siberia.

Holland.—*Corn. Covens*, at Amsterdam, has lately published by authority an alphabetical list of all the towns, villages, &c. of the Batavian Republic, which contains the following authentic information of the number of its inhabitants.

The amount total in the ancient possessions of the Batavian Republic is computed at 1,882,272 souls; to which is to be added the number of the inhabitants of the cantons ceded by France, being as follows; 8,516 in the canton of Ravenstein; 11,548 in that of Gemert; 14,088 in the district of Houst, and 2,079 in the commune Boxmeer in the canton of *Gord*, making in the whole 36,828. The grand total amounts, therefore, to 1,909,000 souls.

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MANNERS.—1. *Original Essay.*—2. *Letter to the Editor.*—*Notices.*

POLITICS.—*On the Prosperous State of Great-Britain.*—*Notices.*

ERRATA.

Page 409, line 60, for *reserve*, read *preserve.*
Page 431, line 28, for *Dorcet*, read *Dorset.*
Page 472, line 16, for *Hume*, read *Home.*

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NUMBER 17.] THURSDAY, APRIL 28, 1803.

PHYSICS.

1. *Of Galvanism.*

IN our general introductory view of physical science, we omitted *galvanism* altogether, promising at the same time to take it up in some future Number. As most of the phænomena belonging to this branch of science have been recently discovered and are not generally known, we considered it as necessary to enter more into detail than was consistent with the plan of our introductory view. This we consider as a sufficient reason for our conduct. We now proceed to fulfil our promise to the public.

The term *Galvanism* is derived from Galvani, professor of anatomy in Bologna, in Italy. We shall present our readers with a sketch of the life of this celebrated philosopher in one of our succeeding Numbers. Happening to be making some experiments with an electrifying machine while some frogs newly deprived of the skin were placed upon the same table; one of his friends present accidentally touched the crural nerve of one of these animals with the point of a scalpel, while the electrifying machine was working. The consequence of this was that the whole animal was thrown into convulsions. The wife of Galvani, observing this phenomenon, immediately ran and informed her husband, who happened to be occupied at the time with something else. He repeated the experiment with success. Every time that the nerve was touched with the scalpel while the machine was working, violent convulsions ensued; but when the machine was stationary, the scalpel produced no effect whatever. This accidental experiment occasioned the discovery of galvanism.

This experiment the professor varied in all possible ways, both by means of artificial and atmospherical electricity, and his results were always consistent. At this period of his researches he considered the phænomena as produced by common electricity passing through the animals. For he had obtained the same effects, though in a smaller degree, from living frogs and other animals, as from those that had been newly killed.

In the course of his experiments on atmospherical electricity he suspended some frogs from the iron palisades which surrounded his garden, by means of metallic hooks fixed in the spines of their backs. The muscles of these animals were observed to contract frequently and involuntarily, as if from a shock of electricity. These convulsions he at first ascribed to changes in the state of the electricity of the atmosphere; but an experimental examination of the subject soon convinced him that he was mistaken. At last, after a great number of ingenious experiments, he discovered that he could produce the convulsions at pleasure by touching two parts of the animal with a piece of metal each, and then bringing these pieces of metal into contact. The experiment may be thus conducted: lay bare about an inch of the crural nerve of a frog, place a piece of zinc in contact with the nerve; place a piece of silver on the muscles towards which the nerve passes: bring the zinc and silver into contact, the whole limb is immediately thrown into convulsions.

The convulsions excited in this manner, after Galvani had published his experiments, were ascribed to the action of a certain unknown fluid called galvanism, or animal electricity; and the phænomena excited very general attention. Galvani himself explained them in the following manner:

According to him there is a certain fluid secreted in the brain, the same with the nervous fluid of physiologists, but which might more properly be called animal electricity, being analogous to common electricity. The nerves are conductors of this fluid. They carry it off, accordingly, as it is secreted, and deposit it on the inner surface of the muscular fibres, which are nonconductors of it, and of course do not permit it to pass through them. The interior surface of the muscular fibres therefore may be considered as positively electrified, while the exterior surface is electrified negatively; so that they resemble exactly a charged Leyden jar. The nerves serve as conductors between these two surfaces, convey the redundant electricity from the internal to the external coat, and every discharge is attended with a muscular contraction, which is the effect of the electrical stimulus.

Thus Galvani supposed he had discovered the most profound secrets of the animal economy; but his opinions were soon opposed by the celebrated Volta, who endeavoured to prove that the Galvanic convulsions are totally independent of the action of any nervous fluid whatever, and owing entirely to common electricity excited by the metallic conductors employed. A controversy ensued between Galvani and Volta, which was carried on by both with much ingenuity and address. The writers on galvanism arranged themselves under two parties. Pfaff, Creve, Achermann, &c. maintained with Volta, that the phænomena were owing to the action of common electricity on the muscular fibres; while Valli, Aldini, Fowler, Humbolt, &c. considered them as depending essentially upon something peculiar to animal matter, and the greater number of these gentlemen seem to have thought this something to be the *nervous fluid* of physiologists, which they considered as the same with, or at least as analogous to common electricity. There was indeed a third party who considered galvanism as produced by something not essentially connected with living matter, and yet different from electricity. But their number was inconsiderable.

The greater number of the writers above mentioned published their observations on galvanism in 1792, 1793 and 1794. The number of facts ascertained was

very great, but the most important of them may be reduced under the following heads:

1. When a piece of metal is placed upon the muscle of a frog or other animal, just dead, and still moist, and a different metal upon the nerve leading to the muscle, or upon another part of the muscle, a convulsion of the muscle takes place when the two pieces of metal are made to touch.

2. One piece of metal, or two pieces of the same metal produce no convulsion. It is necessary that there should be present and in contact *two perfect* conductors of electricity before the convulsion can be exhibited.

3. It is necessary that the muscle be moist. A ligature on a nerve does not prevent the success of the experiment; but opium, &c. by destroying irritability gradually destroys the susceptibility of the muscle to be thrown into convulsions. The same change takes place when the muscle is allowed to remain for some time after death.

4. All the different muscles of the body are not equally susceptible of the galvanic influence; they may indeed be all convulsed, but not with the same ease.

5. When a plate of zinc is placed on the upper surface of the tongue, and a plate of silver on its under surface, a strong taste is perceived, when these metals are brought into contact: the same taste is perceived though the plate of silver be put in contact with the urethra or with other distant tender parts of the body. An acid taste is perceived when the tongue is dipt into an alkaline solution in a tin or zinc cup held in the moist hand.

6. When a piece of metal is made to touch the ball of the eye, and then brought in contact with another piece of a different metal placed on the tongue, a flash of fire is perceived at the instant of contact and separation. The same flash is perceived when the plates are put into several other situations.

7. Convulsions may be excited merely by a proper chain of nerves and muscles. This important fact was first established, we believe, by Aldini.

Hitherto the greater number of philosophers considered galvanism and animal bodies as so intimately connected, that the one could not exist without the other. Several facts however published by Fabroni, Volta, Creve, Ash, &c. began gradually to give currency to the opinion of those who considered galvanism as the action of a peculiar fluid upon the animal fibres; which exists in other bodies as well as those endowed with life, and which is in fact developed by the mutual action of the metals employed as exciting causes.

Fabroni observed that when two pieces of different metals are put into water, they produce changes upon it which neither of them separately are capable of effecting. Hence he concluded that a chemical change was produced by the metals upon each other; and to this change he supposed that at least a part of the phænomena of galvanism was owing. Hence he explained the necessity of two different metals and of moisture. He found also, that the metals which act most powerfully in exciting the galvanic convulsions, &c occasion the most rapid changes on each other in water.

Volta ascertained that metals and charcoal, being all excellent conductors of electricity, attract and repel that fluid with different forces; that whenever two different metals are brought into contact while in their natural state of electricity, electric matter passes from the one to the other, and that the one becomes electrified plus, and the other minus. Hence he concluded that the electricity which occasioned the galvanic phænomena resided not in the animal fibres, but in the metals employed as exciters, and that the convulsions were occasioned merely by the passage of that electric matter through the muscular fibres.

These opinions of Fabroni and Volta appeared at first opposite and inconsistent; but succeeding discoveries demonstrated the necessity of both, and that both chemistry and electricity were concerned in the phænomena of galvanism. They served in the mean time to give a new turn to the researches of philosophers, who henceforth began to consider galvanism not as an inexplicable something connected with living matter, but as something developed by the mutual action of certain inorganic substances on each other, the energy of which might be estimated and measured by the effect produced upon the muscular fibres.

Volta's discovery of the galvanic pile was the consequence of his peculiar opinions. It was announced in a letter to Sir Joseph Banks, published in the Philosophical Transactions for 1800. This discovery gave a new interest to the subject.

Volta's pile consisted originally in a number of plates of metal of two kinds, mixed with similar pieces of wet cloth or card. The metals usually employed are zinc and silver, or zinc and copper. From 10 to 100 plates of each metal may be used. At first they were usually made of the size of a half-crown. The method of erecting the pile is this: a plate of zinc, over it a plate of silver, then a piece of wet card or cloth; over the card a plate of zinc, then a plate of silver, and over the silver a wet card. Thus the whole number of plates are to be placed above each other exactly in the same order. Care must be taken to preserve the two surfaces of metal which are in contact with each other perfectly dry. When a pile is erected in this manner the piece of metal at the bottom is zinc, that at the top is silver. The cloth ought to be moistened with a solution of salt in water; or, if copper be substituted for silver, with a solution of sal ammoniac. If the wet finger of one hand be placed in contact with the bottom of the pile, the instant that the wet finger of the other hand touches the upper plate of the pile, a convulsive twitch is felt in the fingers, more or less strong, according to the number of plates. If a wire from one end of the pile be plunged into a glass of water, if you touch the other extremity of the pile with a moist finger, and then plunge the finger of the other hand into the glass of water, the same convulsive shock is felt with no less violence. If the tongue be substituted for one of the fingers, not only the shock but a strong taste is perceived. In short the pile of Volta exhibits the phænomena of galvanism with much greater energy than the simple pieces of metal. The energy increases with the number of metallic plates. Hence it is obviously independent of the animal fibre altogether.

At present the trough invented by Mr. Cruikshank, of Woolwich, is usually substituted for the pile of Volta. The plates are then of a square shape soldered together two and two, and fixed by cement in a trough of baked wood, at a small distance from each other. The trough by these means is divided into a number of cells, each of which is made water tight by cement. These cells are filled with brine or a solution of sal ammoniac in water; upon bringing the two extremities in contact with different parts of the body so as to complete the circle, the usual shock, &c. is felt.

The analogy between this machine and charged electrics was obvious at first sight. But still it required much discussion to ascertain whether the phenomena in both cases were owing to common electricity, or whether what was called galvanism might not be specifically different from electricity, as different as oxygen and hydrogen gas from each other. Different philosophers adopted at first different opinions on the subject. But the investigation has terminated with the conviction of almost every person that there is a perfect identity between galvanism and electricity.

Nicholson and Carlisle ascertained that the zinc end of the pile was in the plus state, and the silver end minus. Therefore, according to the present notions of electricity, the fluid flows out at the zinc end, and enters at the silver or copper end. When the pile is sufficiently strong, if we complete the circle by means of wires of metal, or by means of plumbago or charcoal, sparks may be perceived, as happens during the discharge of common electricity. Gold leaf, tin foil, metallic wires may be burnt, mixtures of oxygen and hydrogen gas may be exploded, just as happens when electric discharges are made to pass through them. Van Marum charged electrical batteries by means of the pile. In short, they exhibit the same phænomena, and can be substituted for one another: it can scarcely be doubted then that they are identical fluids.

But though the current which passes through the pile be electricity, the experiments of the British philosophers have demonstrated that chemistry also is intimately concerned. Colonel Haldane ascertained that the pile does not act in vacuo nor when surrounded with azotic gas, and that it is more powerful than usual when plunged into an atmosphere of oxygen gas. Dr. Wollaston ascertained that this takes place equally with electrical machines. They cannot be excited in carbonic acid gas nor in any gas that does not contain oxygen. He has even rendered it probable that the effect of the amalgam, employed to excite electrical machines, is proportional to the rapidity with which it is oxidized. Hence we see that in this respect there is a perfect resemblance between the pile and the electrical machine.

It was soon observed by the British chemists that the pile gradually lost its energy, and that this energy was only to be renewed by scouring or cleaning the plates and reconstructing the pile. It was even observed, that the rapidity with which it lost its action was nearly proportional to its original energy. Nor did it escape their attention that the plates, at least one in each pair, were constantly covered with a coat of oxyde. When this oxydation had reached its maximum, the action of the pile ceased. When the metals employed to construct the pile are zinc and silver, it is the zinc which is oxydated, while the silver remains clean. Mr Davy ascertained that the action is always proportional to the oxydation of the zinc: that unless the zinc is oxydated, there is no action at all, and that it ceases altogether when the zinc ceases to be oxydated. Hence it follows that this oxydation is essential to the action. Unless the liquid interposed between the pairs of plates be capable of oxydating the zinc no action takes place. Hence perfectly pure water with silver and zinc occasions no action. Hence the action soon ceases in vacuo with common water, because the oxygen gas which it holds in solution is soon deposited on the zinc, and then the oxydation ceases. Hence oxygen gas in such cases increases the action, because it facilitates the oxydation of the zinc. Hence nitric acid, &c. when substituted for water, increases the action of the pile and enables it to act in vacuo.

From the proportionality between the oxydation of the metals and the action of the pile we may determine before hand whether metals be capable of forming piles, and with what liquids they may be employed. One of the metals must always be more easily oxydated than the other. In short, the elements of the pile are two perfect conductors unequally oxydible, and an imperfect conductor capable of oxydating the most oxydible of the perfect conductors.

But the chemical effects of the pile which were first observed by the British chemists, afford some of the most important phænomena connected with galvanism. We shall arrange these effects under distinct heads.

1. When a wire from each extremity of the pile is plunged into a glass of pure water, and brought within a small distance of each other, but not into perfect contact, the water is acted upon with great energy, and decomposed with different phænomena, according to the nature of the wires employed: these phænomena were discovered by Nicholson and Carlisle. 1. If the wires be of gold or platinum, they remain unaltered; but a stream of oxygen gas flows in small bubbles from the positive wire, while hydrogen gas rises in the same manner from the negative wire. This extrication continues as long as the pile retains its energy. If the gases be collected separately, they are found to be pure, and in the precise proportions that enter into the composition of water. 2. If one wire be plunged into one glass, and another wire into another, if we complete the circle by plunging a finger into each glass, the extrication takes place in the usual manner, the hydrogen gas being disengaged in one vessel, and the oxygen in another, as was first observed by Mr. Davy. 3. If common spring water be used, or water holding azotic gas in solution, a little nitric acid is formed at the extremity of the positive wire, and a little ammonia at the extremity of the negative wire. Hence if the wires be plunged in different glasses connected by an animal body, the positive wire glass reddens the infusion of litmus, and the negative wire glass reddens that of brazil wood. 4. If the wires be of any other metal but gold or platinum, the positive wire is oxydated, but scarcely any gas se-

parates from it, while the hydrogen gas is emitted from the negative wire in the usual manner.

II. If the wires be plunged into metallic solutions, as nitrat of silver, &c.; the silver is revived and deposited on the negative wire. If into solutions containing sulphuric, nitric, or oxymuriatic acids, these acids are decomposed, oxygen gas is emitted by the positive wire, while sulphur or hydrogen gas appears at the negative wire.

III. Ammonia is equally decomposed, hydrogen gas being emitted from the negative wire, and azotic gas from the positive wire, as was shown by Henry.

IV. When pieces of plumbago or charcoal are used instead of wires, carbonic acid is separated from the positive end, and hydrogen gas from the negative. These are the most important phænomena. There are indeed many others; but we shall omit them at present, and connect the whole afterwards by means of an hypothesis, which will save us considerable room, and enable the reader to remember the facts with more ease.

Mr. Davy, whose galvanic discoveries have been numerous and important, invented a pile constructed on different principles from that of Volta, with the nature of which it is necessary to be acquainted before we proceed to our hypothesis. The elements of it consist of two imperfect conductors arranged in order, and separated by a perfect conductor. Thus nitrous acid and liquid sulphuret of potass, are two imperfect conductors. Divide a trough into cells by means of slips of horn and plates of zinc alternately. Into the first cell pour nitrous acid, into the second sulphuret of postass; these two being separated by the slip of horn, make the two liquids communicate by means of a moist piece of cloth laid over the horn. In the same way fill all the cells. Here the zinc is the perfect conductor, and the liquids the imperfect. In this case the action continues till one surface of the zinc is oxydated, the other surface remains unchanged.

Fourcroy and Vauquelin formed a pile consisting of plates of copper and zinc, each about a foot square. Piles of this nature produce no greater shocks than those composed of small plates. But they occasion much more brilliant sparks, and act with much greater energy on metals. Twelve pair of such plates is sufficient to set fire to gold leaf and small metallic wires. If the circle be completed under water with pieces of plumbago, brilliant sparks are emitted, and the water, if small in quantity, soon boils. Many curious experiments have been published by Mr. Davy and others, performed by means of these large plates.

(To be continued.)

2. *On the Tremellas and Ulvas.* By M. Vaucher.

(*Continued from page* 495.)

We may lay it down as a pretty good rule that perspicuity of style and accuracy of arrangement are proportional to the knowledge which an author has of the subject on which he treats. The performance of a smatterer, unless he satisfy himself with skimming lightly along the surface, must always partake of the confusion and doubt under which its author laboured. While, on the other hand, in the works of a master every thing will assume that clear and luminous order which it has in his own mind. The most perspicuous system of algebra which has ever appeared, is that of Euler, the most profound mathematician of the 18th century. If we judge our author by this standard, we shall conclude that his knowledge of the tremellas and ulvas is much more limited than his knowledge of the confervas. For this part of his book has neither the precision, the perspicuity, nor the interest of the first. The facts, notwithstanding, are of considerable importance, because they relate to classes of beings hitherto but imperfectly known and almost neglected. The following analysis will give our readers an idea of our author's observations and opinions on the subject.

The word Tremella has hitherto been used by botanists in rather a vague sense, being sometimes applied to substances of a gelatinous appearance, and sometimes to small oblong filaments floating in a mucilaginous matter. M Vaucher divides them into two genera. To the first he gives the name of *oscillatoria*, to the second that of *nostoc*.

1. The oscillatorias at first view seem to bear a strong resemblance to the confervas. Like them they form patches of a fine green, either fixed at the bottom of the water or floating on its surface, which are composed of numerous filaments united together. Our author at first was imposed upon by this resemblance, and mistook the oscillatorias for microscopic conjugatæ. He was first informed of their real nature by Boissier, a Genevese professor, who brought from Aix a species of oscillatoria which had been minutely described in 1789 by De Saussure.

The filaments of the oscillatorias are so minute that in many species their diameter does not exceed the thousandth part of a line. The patches composed of them have a softness and fineness in their appearance which does not belong to the confervas, and when put into water the filaments arrange themselves like radii round a centre. The filaments are divided into compartments considerably broader than long, and completely filled with green matter. These filaments are always to be found accompanied by a soft unctuous substance, in which the oscillatorias live, and round which they arrange themselves in stars. This substance, which our author compares to *felt*, varies in size and thickness according to the age of the oscillatorias. He thinks it composed partly of an earthy matter, and partly of transparent tubes, the exuviæ of the oscillatorias.

The length of the filament which constitutes the oscillatoria varies, but never exceeds 6 lines. It constantly oscillates backwards and forwards from right to left, or from left to right. These movements are extremely various and irregular, both in swiftness and direction. Sometimes so slow that Saussure compares the motions to that of the hour hand of a watch; but usually much more rapid. According to the observations of our author, the motion has all the characters of being spontaneous. However, the oscillatorias affect the light. Saussure confined them in a dark vessel, leaving a few chinks to let in light here and there. The oscillatorias soon crouded round these apertures. This experiment was repeated with suc-

cess by our author. From this and other observations M. Vaucher concludes that the oscillatorias are not plants but animals: and indeed his proofs appear conclusive.

He observed a head distinctly in the largest species, and in others the filaments were seen to terminate in points, and the body was obviously composed of numerous rings. They multiply by division. The filament separates into pieces, and each piece becomes a compiete oscillatoria. The rapidity with which they acquire their full size is astonishing.

Our author could ascertain nothing respecting the food, the mode of life, or the duration of these animals. They die irrecoverably when the water in which they are contained is evaporated. All irritating liquids destroy them at once. They can bear heat better than cold. They live in water though it has acquired such a degree of putridity as to destroy confervas. M. Vaucher describes twelve species, namely, the *princeps*, *major*, *nigra*, *subfusca*, *adansonii*, *viridis*, *parietina*, *fusca*, *lavigata*, *alba*, *tenuissima*, *vaginata*.

2. Nostocs.—By Nostocs our author means several of the gelatinous bodies included by botanists among the tremellas, but not the whole of them. They are observed in moist places or in water, and are easily distinguished by their gelatinous appearance, their green colour, and the long filaments which they contain, composed of globules adhering to each other like a string of beads. Their organization has a considerable resemblance to that of the oscillatorias, but it differs in many particulars.

In the nostocs the filaments are enveloped in a jelly, in the oscillatorias they are supported by an earthy-like matter. In the nostocs the rings of the filaments are smaller, and the filaments themselves do not exhibit that angular motion so conspicuous in the oscillatorias.

When the substance which composes the nostocs has attained its complete developement, the pellicle which covers it splits irregularly, a half liquid jelly comes out and spreads itself in the water. This jelly is filled with filaments not very distinctly articulated, and resembling the oscillatorias. At their extremity there is usually a globule larger and rounder than the other rings. This globule gradually assumes a form almost spherical, it then separates from the filament. The next ring undergoes the same changes, and separates in its turn, and thus the whole filament is gradually converted into globules which separate from one another. Sometimes this separation of the globules instead of being successive is simultaneous. M. Vaucher thinks that these globules are the rudiments of the future nostocs; partly because no other substance from which they can proceed has been observed, and partly because the young nostocs are all spherical like the globules.

M. Vaucher considers the noctocs not as plants, but as a species of animalcule which constitutes the limit between the vegetable and animal kingdom. They have no root, leaf, stem, or any of the characters which distinguish vegetables. When examined by the microscope no motion can be at first perceived, yet our author satisfied himself that they really move, though so slowly as to escape the sight. He noted the exact position of the filaments, and on examining them after a considerable interval he found that they had changed their situation. He observed also another movement occasionally, by which the filament changed its figure and bent back upon itself.—This question does not appear to us completely decided by our author's observations, though he has certainly given considerable probability to the opinion that the nostocs consist of a congeries of animalcules, each filament being a distinct being. He has described five species, the *commune*, *sphæricum*, *verrucosum*, *coriaceum*, *lichenoides*.

3. Ulvas.—Botanists have given the name of Ulva to transparent membranaceous vegetables which grow under water. They almost all inhabit the sea; most of those, described by botanists as fresh water ulvas, being, according to our author, either confervas or tremellas, except the *ulva intestinalis*, which possesses the true characters of an ulva. He has, however, himself detected several real ulvas inhabiting fresh water, most of them exceedingly minute.

Those ulvas examined by our author exhibited the appearance of a transparent membrane, containing within it a great number of globules disposed 4 and 4 in the form of a square. These grains gradually separate farther and farther from each other, and appear at last scattered over the membrane without any regularity. At the same time they increased so in size as to become double their former bulk. At this period the membrane itself disappeared, and no farther traces of it could be observed. This happened in the beginning of summer. In January, green coloured grains of a very small size were observed attached to the wood and other substances which happened to be in the ditch when those phænomena were first perceived. In spring they increased in size, floated in the liquid, assumed the form of perfect ulvas, and disappeared in their turn, with the same appearances and at the same season as the preceding crop. Hence our author concludes that the grains visible in the ulvas are their seeds. M. Vaucher describes only three species of ulvas, the *minima*, *gelatinosa*, and *fetida*.

All the different vegetable and animal substances described by our author, are accompanied by figures which must make it easy for our botanists to ascertain and examine each of the species; provided they exist in this country, as it is more than probable that they do. Indeed, that some of them are natives of Britain, we can affirm with confidence, as more than one of the genera of confervas have been often observed by the writer of this article.

NOTICES.

The French vice-admiral *Therenard*, has sent to Paris from the island of Reunion, (Bourbon,) a chest with inspissated juice of the papaw-tree, which in the French colonies is considered as the most effectual remedy against worms. *Nauche*, *Cossigny*, *Dubreuil*, and *Legaux de Flaix*, are charged to make experiments with the above juice in order to ascertain its medicinal virtues.

We observed lately the announciation in France of the second part of the Mechanique Celeste of Laplace; a work which astronomers and mathematicians will receive with particular pleasure. By a happy arrangement, and great precision, this eminent author unites perspicuity and profundity more completely than they are generally found in

his subject. This part is finished in one volume, about the size of one of the two of which the first part consists.

Mr S. I. Ljungh, at Stockholm, received from Paris some small boxes with caterpillars and chrysales, for the most part of the *Bombyx Processionea*, wrapped up in cotton, in which state they had continued a considerable time. On his closely examining the cotton, a dust arose from it, which occasioned an itching in his face and hands. He immediately washed both his face and hands with water, but nevertheless, at night, as soon as he grew warm in bed, the itching was converted into a burning pain, which became so violent, that he was obliged to keep his bed the whole of the following day. Having wetted his face with "*Eau d'orquebuade*," the pain and fever increased, small blisters filled with thin matter appeared, and the face swelled very much. He recovered but very slowly; the clothes he wore at that time, although they had been carefully brushed, occasioned anew both itching and eruptions, six months after the above accident happened. *Fabricius*, *Bomare* and *Panzer*, mention the same distemper, produced by the dust of dried caterpillars and chrysales, and *Réaumur* observes, that he has allayed the pain by rubbing the suffering part with parsley. The pain probably arises from the fine hair of the insects, the points of which grow hard in the cocoons, and fly off in dust, when the latter are opened.

LITERATURE.

1. ROYAL ACADEMY.—*Introductory Observations.*

THE near approach of the annual EXHIBITION of the Productions of this excellent Institution may be an apology for the Proprietors of a new Paper, endeavouring to sustain a Literary Character, if they draw the attention of the public to its observations on the ARTS, which are so nearly allied to LITERATURE.

No man can form a proper judgment of the Arts in England, who is not apprized of their inauspicious origin, and the peculiar difficulties under which they have struggled.

It is not our intention to offer a minute history of the Arts in England; a work which is much wanted. —To discuss the question concerning the picture of Henry IV. at Hampton Court, in Herefordshire; whether painted on the Continent during the exile of Henry, or in England after his return; to discuss the merits of that work; and to claim or disclaim for our country, the discovery of painting in oil; to trace the contents of the monasteries, the great repositories of the Arts, through the confiscations and robberies, which accompanied the Reformation, would require the patience and discrimination of the Antiquary, and the taste of the real Connoisseur; and would swell, under the most concise talents, into a large work.

The Arts were not objects of public attention until the reign of HENRY VIII.

They had been recently revived in Italy; and found in France a benignant soil.

In England, the Reformation, by stripping the churches of paintings and images confined the collected productions of the Arts of Greece and Italy in private houses.

FRANCIS I. in every thing the rival of HENRY, instead of encouraging this mode of collecting treasures, and brooding over them in privacy, which is still a passion in England, countenanced the increased decoration of churches, and scattered the seeds of taste over all France, by a liberal patronage of *Andrea del Sarto*, *Rustici*, *Rosso*, *Primaticcio*, *Cellini*, and *Nicolo*.

HENRY, it is true, patronised *Holbein* and *Torregiano*: but the subjects congenial with the taste of the period, the miracles and sufferings of saints and martyrs, were forbidden, and could not suddenly be replaced.

The severity of the Reformation was increased under ELIZABETH; and *Zuccaro* commenced that business of portrait-painting, which has been, to this time, the principal occupation of artists.

JAMES was too much a pedant to possess taste.

CHARLES I. invited and patronised *Rubens*: and if he could have kept and maintained his authority, the Arts would have flourished.

The civil wars and the pretended republic, created an *interregnum* in the dominion of taste.

CHARLES II. was frivolous in every thing; for though he possessed the cartoons of *Rafaelle*; though *Rubens* had magnificently ornamented Whitehall; CHARLES employed *Verio* in silly decorations, and confined the talents of *Sir Peter Lely* to the amorous representations of the *Beauties* of the Court.

The disputed succession to the Crown, occasioned by the errors of JAMES II. and the REVOLUTION, fixed the attention of government on war and politics; and it was not until the reign of his present Majesty GEORGE III, that the genius of REYNOLDS arose; dispersed the few foreigners who depraved rather than improved the public taste; and gave spirit and soul to that body of artists who petitioned the King to bestow his august patronage on the establishment denominated THE ROYAL ACADEMY.

The concurrence of public encouragement, with the Royal favour, in the annual EXHIBITIONS of its productions, and the lectures and example of the late lamented PRESIDENT, have produced great numbers of considerable Artists; and told the world what may be expected from English talents properly instructed and patronised.

We will not, at this time, characterise these Artists; because we may do it, with more propriety, as their works come under our notice, in the ensuing remarks on the EXHIBITION of the present year.

2. *The Temple of Nature, or the Origin of Society. in 4 Cantos. By the late* Dr. Darwin. *4to, with plates.*

In this posthumous work of the author of the *Botanic Garden*, we may trace all the merits and all the defects of that justly celebrated poem. It possesses the same unchanging flow of splendid and correct versification, it abounds with passages possessing every degree of poetic excellence, while we find others so loaded with technical and newly coined words, that, besides requiring the assistance of a glossary, they almost border on the burlesque. There is also a want of obvious connection between the parts, which indeed seems to have been apparent to the Poet himself, as he has tried to obviate it by an analysis prefixed to each canto; but which, from causes which we shall mention as we proceed, only tend to create greater obscurity.

Before we enter on particular objects of criticism, we shall lay before our readers a general outline of the conduct of the poem.

The title prefixed to the first canto is *Production of Life*. After the exordium and an invocation to love, the temple of nature is described. Urania, or, as she is frequently termed, the Hierophant, is introduced, and the poem is afterwards a dialogue between her and the Muse, who desires to be informed by her of the nature of the objects which surround them, to which she consents, and begins a speech, which is properly the opening of the poem itself, what precedes being only an introduction. God, the first cause; process of creation by second causes, from chaos to form, from form to vegetable, animal, and rational organization; ocean the first seat of organization; coral rocks formed by innumerable millions of marine insects, and swelled into islands and continents by volcanic explosions, bringing aquatic animals with them, which by degrees become terrestrial animals; this is illustrated from the Tapa, and the Tadpole, and the mythological fable of Venus rising from the sea. Here the Hierophant pauses, and the Muse compliments her by telling her she is that Venus, and then takes up the subject herself, illustrating the transformation of marine to terrestrial animation, by the fœtus in the womb, and the newly born child, and farther from the formation of animals from mud on the recess of the waters of the Nile, as described by Ovid. The canto then closes with a short dialogue between Urania and the Muse, briefly stating the subject of that which follows.

Canto II. *Reproduction of Life*.—Urania mentions the brevity of life, and the renewal of it under other forms. First, the solitary reproduction both of vegetables and animals, then the introduction of sex in both, of which he supposes the creation of Eve to be a type. Degeneracy of vegetables, and even man, when the mode of reproduction is not varied. Urania stops, and the Muse enquires. Urania utters an eulogium on sexual love: illustrates it in vegetables, insects, beasts, and birds, and then mentions jealousy and connubial love; and after warning her virgin attendants against the dangers of love, the Hierophant and the Muse sit down to a desert of fruit gathered from the tree of knowledge.

Canto III. *Progress of the Mind*.—Urania and the Muse arise from their repast; and, after taking a short survey of the wonders of nature, the former, by the desire of the latter describes the progress of intellect, by irritation, sensation, volition, association. Superior instinct in other animals overbalanced by the nice perception in man from the touch, which is the first inlet of his knowledge. Progress of intellect continued: surprise, novelty, curiosity, passions, vices, virtue, impression of beauty, sentimental love, fine arts, imitation; language, and its improvement: question, if some of the arts of animals are derived from experience or instinct? sympathy: christian morality.

Canto IV. *Of Good and Evil*.—The Muse complains of the evil arising from war, cruelty, and superstition, from the calamities incident to our nature, and even from the sympathy of benevolence with the distresses of others. Urania shews that the good overbalances the evil, and enumerates the pleasures we enjoy from imagination, music, fine arts, learning, and the exercise of benevolence, and that the shortness of life is compensated by new life under different forms, arising from the corruption of vegetables, animals, and of man, all which argue the universal munificence of the Creator.

Perhaps our readers may think that in this analysis we have only transcribed the arguments of each canto, but those arguments, diffuse as they are only create greater difficulty in comprehending the general plan of the poem; as similes, and even figures, are brought in with the subject matter of the work. Hence in the argument of the second canto we find the strange and ludicrous coincidence of "cocks, quails, stags, boars, knights of romance, Helen and Paris."

We will now proceed to give such short extracts from the work itself, as may enable our readers to form their own judgment of the execution of it.

We select the following simile, for as such is the creation of Eve introduced, as a specimen of poetry that has never been excelled nor often equalled in any language, the last couplet excepted, which is very languid and unworthy of the rest. Canto II. page 55, line 5:

"So erst in Paradise creation's Lord,
"As the first leaves of holy writ record,
"From Adam's rib, who press'd the flowery grove,
"And dreamt delighted of untasted love,
"To cheer and charm his solitary mind,
"Form'd a new sex, the MOTHER OF MANKIND,
"—Buoy'd on light step the Beauty seem'd to swim,
"And stretch'd alternate every plant limb;
"Pleased on Euphrates' velvet marge she stood,
"And view'd her playful image in the flood;
"Own'd the fine flame of love, as life began,
"And smil'd enchantment on adoring Man.
"Down her white neck and o'er her bosom roll'd,
"Flow'd in sweet negligence her locks of gold:
"Round her fine form the dim transparence play'd,
"And shew'd the beauties that it seem'd to shade,
"Enamour'd ADAM gaz'd with fond surprise,
"And drank delicious passion from her eyes;
"Felt the new thrill of young Desire, and press'd
"The graceful Virgin to his glowing breast.—
"The conscious Fair betrays her soft alarms,
"Sinks with warm blush into his closing arms,
"Yields to his fond caress with wanton play,
"And sweet, reluctant, amorous, delay."

Passages of equal merit with this occur in every part of the poem. To point out the defects that are occasionally mixed with such excellence, is of all employments the most unpleasant to the critic; but perhaps it is of all his duties the most necessary. Errors of bad poets are only laughed at, and are innocent in proportion as they are ridiculous; but the errors of genius may become precedents.

The frequent introduction of such passages as these, which are like 'mildew'd ears blasting their wholesome brethren,' is the strong characteristic defect of this and all Dr. Darwin's poems:

"Or mark how *oxygen* with *azote* gas
"Plays round the globe in one aerial mass;
"Or fused with *hydrogen* in ceaseless flow,
"Forms the wild waves which foam and roll below."

We confess that technical chemistry does not appear

to us much more congenial with the muse than the mathematics, or that these lines have any real advantage over those in the "Loves of the Triangles:"

"Let *hydrostatics*, simpering as they go,
"Lead the light Naiads on fantastic toe;
"The obedient pulley strong *mechanics* ply,
"And wanton *optics* roll the melting eye."

In Canto III. v. 521, and all the following passages on the subject, we find the muse of mimicry used for poetic imitation in general: whereas mimicry is always used in a ludicrous sense. It may suit

"The tittering nymph that tries her comic task,
"Bedeck on the scene and peeps behind her mask;
"The Punch and Harlequin, and gaver throng
"That shake the theatre with dance and song:"

but certainly not

"The monarch's stately step and tragic pause,
"The hero's [illegible] in his country's cause;
"Or [illegible] child the dying mother's tears,
"The lover's ardor and the virgin's fears."

Dr. Darwin is a bold and happy imitator of the wonders and beauties of nature. The author of the Loves of the Triangles a successful mimic of some of his defects.

It would appear impossible that a man possessing Dr. Darwin's powers of versification could have rendered the noble and triumphant ejaculation of St. Paul so very tame as it is in this couplet,

"Thus sainted Paul, 'O Death,' exulting cries,
"Where is thy sting? O grave, thy victories?"

did we not recollect the impossibility of giving, in any other words, the sublime simplicity which appears even in a literal translation of the sacred writings, and how unequal the divine poetry even of Milton himself has been to such an attempt. Yet this is not the only cause of the degradation of Dr. Darwin's muse here. We are told, it is true, in a note on the place, that "the doctrine of St. Paul teaches the resurrection of the body in an uncorrupted and glorified state, with consciousness of its previous existence, he therefore *justly* exults over the sting of death, and the victory of the grave." Now as the doctrine of St. Paul makes no part of the creed of the author of the Temple of Nature, his exultation cannot be so *just*. He does not believe that "this corruptible must put on incorruption, this mortal must put on immortality." He does not believe that "though worms destroy the body, in his flesh he shall see God." It is *that* corruption and *those* worms that are the objects of his exultation, and the reproduction of reptiles and insects in the putrid carcase are held out as the glorious consolation for the sufferings and the deaths of the hero, the patriot, and the martyr. We may be told in flowery language, that

"Emerging matter from the grave returns,
"Feels new desires, with new sensations burns,
"With youth's first bloom a finer sense acquires,
"And loves and pleasures fan the rising fires;"

but under this *gossamery* veil lies the horrid picture of flies and earth-worms carrying on their sentimental loves in the bodies of those once endowed with beauty, virtue, and courage. This may possibly be congenial with the feelings of modern philosophy; but it is as destructive of every principle of good poetry, as it is repugnant to common sense, and paralyzing to every generous motive of human energy.

Dr. Darwin's language is, in general, so correct, and the verse so polished, that there is little opportunity for criticism on that head. We were therefore surprised to find such an expression as

"*Ducks* to the mandate of imperial fate,"

and in this passage

"The births and deaths contend with equal strife,
"And every pore of nature teems with life;
"Which buds or breathes from Indus to the Poles,
"And earth's vast surface *kindles* as it rolls,"

to observe *kindle* used in a sense which it only has in the lowest language, and that we believe solely confined to hares and rabbits.

Before we conclude, resuming a subject we have just quitted, when we reflect that the poem is intended to establish a system of exclusive materialism, justice compels us to say, it has a fault for which no poetic excellence whatever can compensate; for notwithstanding the name of a Great First Cause is frequently introduced, yet while it is deprived of all moral agency, it has no more influence on the tendency of the poem, than the clause of the articles of war which denounces punishment on those who speak disrespectfully of the King and his family, being retained in the *parliamentary army, had on their loyalty while they were in arms against them.

* This curious circumstance is recorded in Grose's History of the English chronology.

3. *Observations on the word* Natrum.

It is in vain to look for the word Natrum in the Greek and Latin languages, since it is to be found in neither of them. Perhaps it may be worth while to inquire how Natrum of the Moderns, which has the same meaning as Netr, of the Hebrews, of Nitron of the Greeks, and Nitrum of the Latins, should not have a similar term in our language also, since what we call nitre is quite another sort of thing, from the nitre of Solomon and Jeremiah, Dioscorides and Pliny. The nitre of the moderns is a neutral salt. The fossil alcali which we call natrum, abounds in Egypt, as General Andreossi has shewn, and many parts of Asia, where it is called soap-earth, because it is dissolved in water, and used like soap in washing. In Hindostan it is known by the name of Shor, and Sejj-mutwy, or clay of dissolution. The Arabic single term for it is Natroon, from which last we derive our word Natrum. The passages in the Proverbs, and Jeremiah, are well known, but the one from Solomon is not often fully quoted. In the 25th chapter, and the 20th verse, the wise king says: To leave off, or the leaving off of an outer garment in a cold day is vinegar upon nitre, and singing to a heavy heart. This requires no comment, and speaks intelligibly to every understanding.

The cold blast agrees as ill with thin cloathing, as acid with alkali, or joy with sorrow. Jeremiah says, though thou wash thyself with nitre, and use abundance of the herb Borith, how canst thou say, I am not polluted? In these instances the word nitre, or natroon is evidently an alkali, and comes to us from the Arabic, for in Hebrew it is netr, in Greek nitre, and in Latin nitrum.

S. W.

4. De Origine et Usu Obeliscorum, &c.—*On the Origin and Use of Obelisks, &c. by* George Zoega, *a native of Denmark. Rome.*

This work, which has been long impatiently expected by those who know how to appreciate the literary merits of Mr. Zoega, is printed in a very neat and elegant style, and embellished with ten vignettes and eight plates. Profound erudition and elaborate philosophical research form the prominent features of this valuable composition, which in every point of view is worthy of the enlightened Antiquarian, to whom we are indebted for the masterly "*description of the Egyptian-Roman Medals of the Museum Borgia.*"

It is divided into five sections, containing each several chapters. All the information which the ancients have left us on the Egyptian obelisks and monuments is compressed into the first section. The second contains a correct enumeration of all the obelisks which are found at Rome and in other countries. In the third, the author treats of the obelisks in Egypt, of the origin of their name, of their form, materials, &c. The fourth section is devoted to researches on the origin of obelisks, and by way of analogy on the origin of the ideas by which the ancient artists have been guided in the representation of the divinity, and of the state of the soul after death, on mausoleums, tombs, pyramids, &c.

The fifth section contains the history of obelisks, divided into four periods, and terminates with a brief sketch of their chronology, according to the various systems of the different authors who have written on the subject.

The vignettes represent monuments mostly inedited. The obelisks of *Belvidere*, *Montecavallo* and *Montemincio* are represented in the three large plates. The smaller ones represent the obelisks of *Montecitorio* and *Piazza Navona*, fragments of which are found in the Museum Borgia, with the point of the obelisk of Montecitorio in its natural size, and two of them contain perspective views of the obelisks of Montepincio and Montecitorio in their present position.

NOTICES.

Literary Fund.—On Thursday the 21st inst. the Anniversary of that excellent Institution was celebrated with great order, taste, and festivity, at the Crown and Anchor Tavern; where 400 gentlemen sat down to a good dinner and good wines; and where the apology of the Duke of Somerset, its president, for his absence, being received by the Stewards, Lord Pelham was invited and took the Chair.

The recitations by *Mr. Fitzgerald* and *Mr. Birch*, on the benevolent views of the society; and a poem on Liberality read by *Mr. Highmore*, made deep impressions on the audience; and Lord Pelham took repeated occasions to express the highest satisfaction at the general object of the Institution, and his sincere intention to promote it.

The Treasurer's report of new contributions and subscriptions amounted nearly to thirteen hundred pounds; five of which is a legacy by the late Mr. Hawkins, and four hundred and seventy-six a subscription commenced at *Hyderabad* in India, by *Col. Kirkpatrick*, &c. who mean to promote it in all the larger and richer settlements.

It is a consolation to the friends of genius and learning, that they are no longer to be abandoned; and that an Institution, competent in its regulations and in its funds, will soon be in a state to administer to their relief, if not, in every case, to do them justice.

At *Mr. Grace's Sale*, (Leigh and Sotheby's,)—Friday, April 25, the following purchases were made by Mr. Gough. *The Honour and Impartiality of the House of Commons in the Case of Sir William Wyndham*, 1s.—*Life of Mrs. Margaret Baxter, daughter to Francis Charlton, of Apply in Shropshire, Esq.* and *wife to Richard Baxter*. London, 1681, 6s. 6d.— *Imagenement of Superstition, or Discourse between a Protestant, a Glazier, and a Separatist, concerning pulling down Church Windows.* London, 1641.—*The World's mistake in Oliver Cromwell.* London, 1668, was knocked down to the Marquis of Blandford for 10s. 6d. Both on this and the preceding days, many curious Tracts were bought by the traveller Mr. Cripps, of Jesus College, Cambridge, *viz. Gellibrand on the Variation of the Magnetical Needle.* London, 1635, 7s. 6d.—*Mussic's Rarities of the World, translated by Baddon.* London, 1651, 4s. 6d.—*Walpole's Historic Doubts on Richard the Third, with the Answer*, 2 vols. 4to. London, 1768, £1 11s. 6d.— *Archbishop Usher's Disquisition touching Asia.* Oxford, 1613, 2s.—*The Donation of Constantine unto Sylvester Pope, of Rhome, Imprinted at London, by Thomas Godfray*, 10s. 6d.— Mr. Hill bought *Neale's Poem upon the praise of Vertue, by Ber. N.* with borders, Title wanting, for £2 12s. 6d.

The Sale of Mr. Heathcote's Duplicates finished on Tuesday.—On Wednesday, April 30, *Terentianus Maurus de Metris Horatianis et Marius Victorinus de Grammatica et Bib. Sanctandreana*, 8vo. 1583, went for £1 10s. —*Florio's Fruits to be gathered of twelve Trees*, 4to. London, 1591, was bought by Nicol.—*Milton's Paradise Lost*, first edition 4to. 1668, was knocked down for 8s. 6d. —*Gough's Sepulchral Monuments*, 5 vols. bound in Russia by Walker, were bought by *Lord Lonsdale* for £36 10s.— *Horatianum Benjamenis de Tydeli, cum versione et Notis*, Heb. et Lat. 12mo. Elzevir, 1733, by the Marquis of Abercorn, for 8s.—A very fine and rare copy of *Mezeray's Histoire de France*, 3 vols. large paper. Paris, Guillemot, 1643, went for £21 5s.—The *Voyage Pittoresque de la Grece*, &c. a magnificent copy, 15 vols. folio, went for £147.

Thursday, April 24.—Mr. Rogers bought *Les Œuvres de Rabelais*, avec Notes par Duchat, 8 Tom. with Picart's Plates, 4to. Amst. for £3 7s.—Lord Morpeth got a beautiful copy of *Les Œuvres Dramatiques de Destouches*, 4 Tom. in red Morocco. Paris, 1757, for £3 9s.—*Madame Beaumarchais'* picked copy of *Voltaire*, 1785, 70 vols. 8vo. bound in green Morocco, went for £64 1s.

The *Italian Books* were sold by themselves on Monday April 28.—The first edition of the Italia Liberata da Gothi del Trissino, 3 Tom. in Morocco, 1547, went for £2 3s.—The best edition of *Vasari's* Lives, 3 Tom. with Portraits, Giunti, 1568, fetched £4 4s.—Mr. Wilbraham bought the rare edition of *Il Decamerone di Boccaccio*, 4to. bound in Morocco, for £3 5s.—Colonel Stanley bought *Il Cavalier della Notte dal Brusoni*, 18mo. Venetia, 1682, for 2s.—A rare edition of the *Orlando Inamorata dal Boiardo et hora rifatto da Berni*, in green Morocco, Venetio, Giuntou, 1545, was knocked down to Mr. Wilbraham, for £2 2s.—Mr. Rogers bought, *Barco in Toscana di Redi con le Annotazioni*, 4to. Ferenze, 1685, for 17s. 6d.—A collection of curious and scarce *Italian Tracts* were bid for by *Mr. Heber* and *Mr. Wilbraham*, and knocked down to the former.

Tuesday, April 26, the last day was particularly well attended.—*Lord Carrington* was a principal buyer: among other Works, *Luciani Opera Gr. et Lat. cum notis Variorum*, et Vossii 2 vols. in vellum, 8vo. Amst. 1687, for £1 8s.—*Mr. Huskinson* made some purchases.—*Historiæ Augustæ Scriptores*, 1671, £1 4s. &c.—Lord Lowther

bought the *Elzevir Livy*, 3 vols. red Morocco, notis Variorum et Gronovii, 1665, 8vo. for £3.—The *Nonni Dionysiaca*, 8vo. cum notis Variorum et Heeusii, 1610, a rare book, was knocked down to Mr. Howley for £1 14s. The Marquis of Hertford bought *La Consolation, Philos. de Boece*, in red Morocco, 12mo, 2. Tom. Haye, 1774, for £1 11s. 6d.—*Wakefield's Lucretius*, 3 vols. large paper, bound in green Morocco, of which work only five copies were saved in Mr. Hamilton's late fire—went for £50 ss. The Duke of Norfolk came in at the close of the Sale, and bought the beautiful M. S. on vellum, called the *Golden Legend*, or Lives of the Saints, written in 1340, (and translated from the Latin into French, by Johan de Vignay, at the particular request of Jane, daughter of Robert the Second, Duke of Burgundy, and wife of Philip de Valois) for £64. 1s.

On Wednesday, the Rev. James Horne's Collection of *Pope's Medals* was sold by Leigh and Sotheby.

On Monday, May 2, and the four following days, the Valuable Collection of Coins and Medals, Ancient and Modern, made by George Holliscroe Baker, Esq. of Birmingham, will be sold at Leigh and Sotheby's. Among these are The fifty shilling piece of Oliver Cromwell, and the famous Petition crown of Charles II. by Thomas Simon, both highly preserved.

A new Volume of the *Archæologia* is in the Press.

Mr. Julius Griffith's translation of Le Noir's Antiquities of France, printed at Paris, is just imported. In future the original Work and the translation will appear at the same time.

We observed in a late Paris Journal the annunciation of a new number of a work, which we think new and important in its design. *The title of the Work is, an Historical and Elementary course of Painting, or the complete Gallery of the central Museum of France, by a Society of Amateurs and Artists.* The object of the publication is to present to the public criticisms on the different pieces preserved in that celebrated repository, accompanied with plates of each piece. We have examined several of the numbers, the criticisms in which appear to us to shew great skill in the art. There is an introductory discourse on the origin and progress of the arts. And many of the prints, though they are not executed in the very finest manner, deserve no little praise. We have very little doubt that persons ambitious of being judges in painting will derive considerable assistance from this production.

On the 23d of February last, Professor *Jaubert*, of the Academy of Modern Oriental languages at Paris, who lately returned from the East with Colonel Sebastiani, commenced a course of Lectures on the Turkish language. In addition to the principles of grammar, he explains three times a week the Geography of the Turkish Empire, and the history of the maritime wars of Hhady Khalfah, surnamed Kidlib Tchélebi.

We learn from the second number of the first volume of the *Hungarian Magazine*, published at *Pesth*, that the celebrated *Baron Tot*, properly *Thot*, a native of Hungary, and author of the "*Memoires sur les Turcs et les Tartares*, &c." being driven from France by the revolution, found a kind and generous protector in Count *Theodore Bathyáni*, passed his latter days at *Tatsmansdorf*, in Hungary, and died there in 1793.

In the first number of the second volume of the same magazine, the Abbé *Eder* makes the following remark on the discovery of the new metal, called *Tellurium*. Mr. *Francis Muller von Reichenstein*, at present aulic counsellor and member of the Imperial Royal Board for the administration of the mint and mines, observed as early as 1785, in the Transactions of the Unanimous Friends at Vienna, that among the minerals of *Facebaja*, a semi-metal was found, which materially differed from all known metals and semi-metals. In 1796 he sent a piece of that mineral with his remarks on its properties to *Klaproth* at Berlin, who gave it the name of *Tellurium*. The latest observations of this chemist on that new metal are recorded in the third Number of the Literary Journal.

The *Society of the Friends of the Sciences*, established at Warsaw, whose present President is the venerable Bishop *Albertandi*, one of the most eminent Polish Literati, has lately published the first volume of the Memoirs of the Society under the title—"*Rocznik Towarzystwa Warszawskiego Przyiaciol Nauk*," &c. Annual transactions of the Warsaw Society of the Friends of the Sciences.—Among other interesting articles, this volume contains an excellent speech, delivered by its worthy President at the first public sitting of the Society, (private sittings are held every day,) wherein he declares the preservation of the Polish language from entire annihilation, and the diffusion scientific lights to constitute the principal purposes of the Society, and points out the high degree of perfection early attained by his native tongue. "At a time, says the learned Prelate, when all other European nations, the Italians and Spaniards alone excepted, saw but at a distance the dawn of sciences faintly glimmer in their countries; when Francis I. who lived at the same time as the Polish Sigismundus I. was endeavouring to transplant the Sciences from civilized countries into his dominions, Poland possessed already writers of distinguished eminence. Frenchmen, who should at present write in the style of a *Varol*, *Bait*, nay of an *Amyot*, would be treated with contemptuous laughter, and hardly be understood, while a Polander, who imitates the style of *Budny*, *Gornicki*, *Kochanowsky*, and other Polish authors of the reign of Sigismundus I. is cherished and read."

The proposals for publishing by subscription "*Alexandre Laborde's Voyage pittoresque, historique et géographique du Royaume d'Espagne*," had scarce made their appearance, when a similar work was announced at Madrid, entitled, *Viaje pittoresco de Espana, por una Sociedad de Literatos y Artistas*, &c. Picturesque travels in Spain, by a Society of Men of Letters and Artists. It is to consist of 60 to 70 monthly numbers, containing each 6 plates, and 6 sheets of letter-press, explaining in the Spanish and French languages the objects represented on the plates. The price of each number is 4 piastres, and subscriptions are received at the commercial house of the widow *de Pendo*, No. 7, Toledo-street, Madrid.

Desoteux Cormartin, who has been long confined in the castle of *Ham*, but resides at present in the town of *Bar sur Orne*, (Bar-le-Duc) has lately claimed, as his property, the travels in Portugal, printed under the name of the Duke *du Chatelet*, with Bourgoing's notes.

At the Imperial printing-office in Constantinople, the present director of which is *Abdur-Rehman Effendi*, the following works have lately left the press:—A large Turkish and Persian Dictionary, *Burhan Katij*; a Dictionary of the Turkish, Arabian and Persian languages, *Lehoschetollugat*; and a collection of logarithmetical tables. The latter, printed without a title-page, contains mere columns of figures, which appear to be tolerably correct. These tables are solely intended for the use of the corps of engineers and bombardiers.

A new edition of *Wankuli's* Arabian and Turkish Dictionary, which on account of its scarcity was sold for exorbitant prices, is now printing.

The types are but very indifferent, and in point of neatness and elegance far inferior to the Parisian types.

The printing-office, which was formerly in the suburb *Chaskoi*, has been removed to *Scutari*, into a large building in the vicinity of the new barracks of the Janizaries.

MANNERS.

THE late duel at Chalk Farm has been for some days the general theme of conversation, and what provokes conversation in any great degree becomes also a subject for those who convey their thoughts by means of the pen. Hence we have been favoured with several communications on this subject, which, for very obvious reasons, we did not think it proper to insert. The time of delicacy, however, is past; and perhaps, indeed, what follows need not have been suppressed for any reason unless a respect for publick opinion. We cannot flatter ourselves, that our lucubrations would direct a judge, or influence a jury; and on a subject so hackneyed as that of duelling, what can be now said that has not been repeated in vain by legislators and moralists?

Of those who countenance or practise duelling, few are acquainted with its history, and fewer have seriously considered its utility. Young men of fire and passion have certain confused notions of a RULE of HONOUR to which they wish to adhere, but which they cannot explain. They run the chance of death as a duty, although they cannot say it is a duty enjoined by God or man. They adopt a mode of decision which leaves the primary question undecided, and vindicate their courage by means which are in the power of chance rather than of bravery. In contending for their *honour*, they seem not to know that it is *reproach* only which they wish to avoid, and in avoiding the reproach of the few, they forget that they have incurred that of the many. Duelling is averse to the English principles of religion and law; its practice therefore can never be popular: it is an anomaly which we know not how to defend, and for which we are at a loss to account. It is yet more an anomaly, when we consider that they who practise it are careless whether it can be defended or not.

Mandeville, a writer to whom the world has been indebted for little that is good, and who would in an age of pure principles be despised, if he were not forgotten, has advanced more in favour of duelling than any author with whom we are acquainted. His sentiments on this subject are worth transcribing, because they are sometimes quoted by those who can neither think nor write.

"Without obeying this sentimental influence of honour," says Mandeville, "that is, the spirit of duelling, there would be no living in a populous nation. It is the tie of society; and although we are beholden to our frailties for the chief ingredient of it, there has been no virtue, at least that I am acquainted with, which hath proved half so instrumental to the civilising of mankind, who, in great societies, would soon degenerate into cruel villains and treacherous slaves, were honour to be removed from among them.

"Yet, in regard to duelling, I pity the unfortunate, whose lot it is to be inevitably exposed to a perilous encounter: but cannot agree with those who say, that the persons guilty of such daring exertion proceed by false rules or mistaken notions of honour; because, as I understand the word, either there is no honour at all, or it teaches men to resent injuries, and accept challenges. For they may as well deny that which we see every body wear to be the prevailing fashion, as to declare, that demanding and giving satisfaction is against the laws of true honour.

"The inconsiderate opponents who rail against duelling, do not reflect on the benefit which society receives from that fashionable intrepidity. If every ill-bred fellow might use what language he pleased with impunity, and continue offensive, because entrenched from the fear of being called to an account for it, then all conversation would be spoiled.

"We are informed, indeed, by some grave philosophical folks, that the Greeks and Romans, who were undoubtedly most valiant men, were totally ignorant of duelling, and never drew their swords but against an enemy in their country's quarrel. This is most true: but for that very reason, the kings and princes in Homer gave one another worse language than our porters and hackney-coachmen would be able to bear, without resentment and insisting on an immediate satisfaction being made to them.

"Would the legislature prevent duelling as much as possible, let nobody be pardoned, who shall offend that way; and let the laws against it be made as severe as possible; but the practice of it cannot and should not entirely be abolished. The rigour of the law will prevent the frequency of it, by rendering the most resolute and the most powerful, cautious and circumspect in their behaviour, not to wantonly trespass against it; and consequently that apprehension will polish and brighten society in general.

"Man is civilized by nothing so irresistibly as by his fear: for, according to Lord Rochester's oracular sentiment, 'If not all, at least most men would be cowards if they durst.' The dread of being called to a personal account keeps abundance of people in awe; and there are now many thousands of mannerly and well-accomplished gentlemen in Europe, who would have turned out very insolent and very insupportable coxcombs, without so salutary a curb, to keep under restraint their naturally eruptive petulance.

"Whenever it shall become unfashionable to demand a manly satisfaction for such injuries received as the law cannot take hold of, then will there most certainly be committed twenty times the mischief that there is now: or else the present number of constables and other peace-officers must be increased twenty-fold.

"Although duelling happens but seldom among us, in comparison of other countries, yet it is, I own, a calamity to the individuals and families whom it may immediately affect; but all felicity of life has its alloy, from the very obvious reason, that there can be no perfect happiness in this world.

"Notwithstanding, every rational person must own, that the act of duelling, in itself, is uncharitable, unsocial, nay, inhuman: yet when we consider, that, one year with another, above thirty destroy themselves by suicide, and that not half that number are killed by others in duelling, surely it cannot be said of our people, that they love their neighbours better than themselves.

"Is it not somewhat strange that a nation should grudge to see, perhaps, half a dozen men sacrificed in a twelvemonth, to obtain and insure such invaluable

blessings as the politeness of manners, the pleasure of conversation, and the happiness of company in general: and especially a nation too that is often so ready, so willing to expose, and sometimes to lose as many thousands in a few hours, without the least certainty that any future benefit shall accrue to her from such a loss?

"The most cogent argument that can be urged against modern honour, and its favourite principle, the spirit of duelling, is its being so diametrically opposite to the forgiving meekness of Christianity. The Gospel commands us to bear injuries with a resigned patience: Honour tells us, if we do not resent them in a becoming manner, we are unworthy of ranking in society as men.

"Revealed Religion commands the faithful to leave all revenge to God: Honour bids persons of feeling to trust their revenge to nobody but themselves, even where the courts of law, by the interfering of justice, might do it for them.

"Christianity, in express and positive terms, forbids murder: Honour rises up in bare-faced opposition to justify it. Religion prohibits our shedding blood upon any account whatsoever: Punctilious honour commands and eggs us on to fight even for trifles. Christianity is founded upon humility: Honour is erected upon pride. I must leave it to wiser heads than mine, to bring about a reconciliation between them."

The whole that has been advanced in favour of duelling seems to be comprised in the above extract, yet it would be disrespectful, if we should suppose any of our readers incapable of marking the egregious fallacy of this whole train of reasoning, if it deserve the name. It is founded on an assumption for which no proof is alleged, namely, that good manners are protected by duelling; the very opposite of this is consistent with all fact and all experience, since the principal disturbances given to social life arise from a contentious, impatient, and proud spirit, vindicating its intrusions and impertinence by the rule of honour, and answering every correction of temperate reasoning, and every hint of impropriety, by a challenge. The whole history of duelling in modern times proves this; and were a list of the duels of the last fifty years to be laid before the reader, he would have some difficulty in selecting any that did not argue in the one party or the other the grossest brutality of manners. It must indeed be acknowledged, with whatever regret, that in the case of most of the duels which have of late years been fought, the cause has not only been far removed from a serious injury, but has been totally unconnected with good manners, true honour, nice spirit, or even bravery.

But what would effectually destroy a thousand such arguments as Mandeville has advanced, is that which must readily present itself to every thinking mind. If duelling be considered as a punishment, it is totally insufficient for the purpose, and, as Mr. Paley very justly observes, "is absurd; because it is an equal chance, whether the punishment fall upon the offender or the person offended." On this account therefore, all arguments in favour of duelling, founded upon the good it does, must fall to the ground. How ridiculous would it appear, in the prosecution of a felon, if it were an equal chance whether the prosecutor or the felon should be put to death? Yet such would certainly be the case, if the injury were left to be repaired by a duel.

Dr. Johnson, one of the most acute reasoners of his age, frankly acknowledged that he could not *explain the rationality of duelling*. Yet in his moments of lax conversation he defended it upon specious grounds. "He put his argument," says Mr. Boswell, "upon what I have ever thought the most solid basis; that if *publick war* be allowed to be consistent with morality, *private war* must be equally so." It is somewhat strange, however, that Mr. Boswell did not perceive how widely the two cases differ. In the case of *publick war*, there is no alternative; the necessity is imperious, because founded upon the acknowledged principle of self-defence. A nation injured, or threatened with an injury, has no other remedy than war; no law to resort to, no third power to whom it may appeal. The reverse of all this is the case of the individual, who has a positive law to resort to in all injuries, except those which are injuries of opinion or imagination, and such are the injuries which provoke challenges.

In behalf of such injuries, Dr. Johnson, in another conversation, advanced more cogent arguments than can be refuted in the present state of society. "As men become in a high degree refined, various causes of offence arise; which are considered to be of such importance, that life must be staked to atone for them, though in reality they are not so. A body that has received a very fine polish may be easily hurt. Before men arrive at this artificial refinement, if one tells his neighbour he lies, his neighbour tells him he lies; if one gives his neighbour a blow, his neighbour gives him a blow: but in a state of highly polished society, an affront is held to be a serious injury. It must therefore be resented, or rather a duel must be fought upon it; as men have agreed to banish from their society one who puts up with an affront without fighting a duel. Now, it is never unlawful to fight in self-defence. He, then, who fights a duel, does not fight from passion against his antagonist, but out of self-defence; to avert the stigma of the world, and to prevent himself from being driven out of society. I could wish that there was not that superfluity of refinement: but while such notions prevail, *no doubt a man may* LAWFULLY *fight a duel*."

Let it be remembered that this opinion was delivered in conversation, when Dr. Johnson acknowledged that he sometimes talked in a lax manner. He would not have written this. When he says, "*no doubt*, a man may *lawfully* fight a duel," he makes use of expressions without a meaning, or with a perverted meaning. He has very ingeniously contrived to make the accepting or giving a challenge a matter of self-defence, but it is a species of self-defence, not the dictate of *nature*, but arising from the *artificial* construction of a certain class of men in society; and when therefore he asserts that a man may *lawfully* fight a duel, it is proper to ask what *lawfully* here means? If it mean *that which is according to law*, we would ask what law? Not the law of the land,

for that expressly pronounces duelling to be murder, both in principals and seconds—and we have too much respect for the memory of our great moralist to suppose that he meant the law of God.

Still it must be allowed that while there exists a class of men who agree to expel from their society him who refuses to fight a duel, on the usual provocations, there is an inevitable necessity imposed on the members of that class to conform to its rules. And here, as the recorders of manners, and of changes of manners, we may observe, that although the class alluded to, was formerly composed only of the gentlemen of the army and navy, it has of late years become so comprehensive as to include all orders and degrees of men. Our late duels have been fought by members of parliament, barristers, divines, physicians, apothecaries, attornies, merchants, bankers, and private persons of various denominations. It will require some fresh illustrations of the necessity of duelling, in order to prove that all these gentlemen have a legitimate right to be included in the "legion of honour." The origin and principle of duelling among *military* men is obvious: it is the necessity imposed on them to repel the least suspicion of their *courage*, which with them is character, fortune, and life itself. Why the other parties have forsaken the senate, the bar, the pulpit, or the counting-house, to assert their courage in Hyde-park, is a question which might be worthy of discussion, if it were possible to preserve a suitable degree of gravity.

The subject of this paper has been forced upon us by the agitation of the public mind respecting an event, which is by no means uncommon, but which happened to be attended with peculiar circumstances on which we shall make no comment, and on which, indeed, if we may believe common report, no comment is necessary. The popular cry is for a new law, and some of the papers very gravely tell us, that a new law is in preparation. This is absurd: the law has already done all that law can do. The rest remains with the public—to make distinctions between true and false honour, and between real courage and private revenge; between the *cause* which disgraces a rational being, and that which ennobles the hero and the patriot.

R. S.

NOTICES.

The Complement of *Boodle's* club in St. James's-street is 400 members; and there are no less than 170 Candidates for the first Vacancy.

A Physician, who is well known at the West-end of the town, lately complained, that owing to the number of servants in a nobleman's household, he was unable to procure the refreshment ordered for his patient: by the time the order had been given to the Groom of the Chambers, from him to the *Maitre d'Hotel*, and from the Maitre d'Hotel to his Deputy, the poor patient had entirely lost what little appetite had existed.

The ladies of high Ton have lately received orders from their milliners, to wear a new article of dress called an *Equivoque*.

POLITICS.

IT is with singular pleasure that every enlightened friend of his country, and of his species, must observe the general concurrence of all men's wishes and prayers for the continuance of peace. When we recall to our minds the violence to which the hostile sentiments of our countrymen were so lately worked up, it appears the next thing to a miracle that so insignificant a party should remain who still keep up the cry of war, and over whom their late impressions have a greater influence, than sound judgment, concerning the actual state of affairs. This reconciliation of the minds of Britons to peace, is the more extraordinary, as this country is demonstrably stronger than her antagonist; and has a more evident superiority over France at this moment than she ever possessed since the treaty of Westphalia. Is there any period, since the treaty of Westphalia, at which France was so weak as at this moment? But to how great a degree has the power of Britain increased since that era?

The easy and eager adoption of amicable sentiments in circumstances like these, is not merely a proof of noble generosity and liberality, which Britons have not shewn more frequently toward their enemies than other nations, but it is a proof of the general diffusion of more enlightened notions respecting the real interest of nations, and of the individuals who compose them. It is not now understood to be the interest of any country to wreak its vengeance, and satiate all its vindictive passions, upon the country which has offended it; the honour of no people is thought to be measured by the evil which it inflicts upon a rival neighbour; the sword is now taken up with reluctance, as the last remedy; it is taken up for one object alone, security; and is deposited as soon as that end is obtained. This is a prodigious advancement in civilization. And the speedy return of our countrymen to mild sentiments, from those violent ones which a concurrence of extraordinary circumstances had raised, is a most gratifying proof of the progress which improvement has made among them.

It is whimsical that those persons who have the greatest terror respecting the prevalence of that unsocial principle by which a man desires to become great, not by raising himself, but by pulling down others, should be actuated by that very principle in their purposes and wishes with regard to other nations. It is a new instance of a very common, and just remark, that extremes have a great tendency to meet. Explain to the conviction even of these persons themselves, that the arts of peace are the source of prosperity to their country, they despise that prosperity, unless they can at the same time destroy the property of that country which is the object of their resentment. It is not sufficient that they themselves advance in riches and power; this is of no value, if their neighbour increases in riches and power at the same time.

We have already removed the grand obstruction to the adoption of amicable sentiments towards France in the minds of our countrymen; we have proved most completely that she is not an object of terror to this country; that the convulsive struggles which she has made, as is their necessary consequence both in the

natural and the political body, however formidable, and however great while they continue, have not left strength, but weakness, behind them. Her military splendour, which so much dazzles the unreflecting people of this country, has been purchased by years, perhaps ages, of poverty and decrepitude. This is not the mere conclusion of general reasoning, which however is a much better ground of action, than violent, unsupported assertions; it is confirmed by experience, and by one of the most extraordinary facts in modern history. Who does not admire the military exploits of Sweden, during the reign of two of her heroic princes, Gustavus, and Charles? How great, how disproportionate a share of influence did she not then maintain in the general affairs of Europe? But did she raise her permanent consequence by these extraordinary efforts? Miserably the reverse. She so exhausted herself, that she fell instantly into the last stage of weakness, from which she has never yet recovered. The first of the northern nations into which the lights of civilization, into which industry and its blessings were introduced, she might have exhibited a fortune equal in brilliancy to that of almost any nation, and instead of being cut up, and trampled upon by a rude neighbour, might have extended her dominions one very side, have kept the metropolis of that neighbour from the shores of the Baltic, and have materially altered the condition of Europe; had not an extraordinary concurrence of circumstances drawn one of her sovereigns, and his own restless and impetuous disposition another, to drain their country of its resources, and cut off all the means of improvement.

Let us desire, too, the advocates of war to reflect whether their own country wages it with impunity. It was rather before the beginning of the last century that this country began the borrowing or funding system: it added gradually to its debts, as occasions rendered necessary; and at the beginning of 1793, they amounted to £238,231,248. This sum was at that period accounted perfectly enormous; and filled all reflecting men with the most serious apprehensions respecting the fate of the country. Mr. Hume was of opinion that the spunge was the only remedy of which the desperate nature of the disease admitted. Dr. Smith, in the *Wealth of Nations*, expresses himself with regard to the same subject, in these terms:*

"The practice of funding has gradually enfeebled every state which has adopted it. The Italian republics seem to have begun it. Genoa and Venice, the only two remaining which can pretend to an independent existence, have both been enfeebled by it. Spain seems to have learned the practice from the Italian republics, and, its taxes being probably less judicious than theirs, it, has in proportion to its natural strength, been still more enfeebled. The debts of Spain are of very old standing. It was deeply in debt before the end of the sixteenth century, about a hundred years before England owed a shilling. France, notwithstanding all its natural resources, languishes under an oppressive load of the same kind. The republic of the United Provinces is as much enfeebled by its debts as either Genoa or Venice. Is it likely that in Great Britain alone, a practice which has brought either weakness or desolation into every other country, should prove altogether innocent?"

It was the force of these alarming considerations which affected the people with such a paroxysm of joy upon the disclosure of Mr. Pitt's system for the payment of the national debt. To have a period pointed out to them, when that monster, which threatened to devour them, should be destroyed, was, they imagined, a blessing which they could not too highly prize, and to the author of which they could not be too highly grateful.

Since the period when the paragraph which we have just quoted was written by Dr. Smith, we have seen that debt which had then enfeebled France, Holland, and Venice, bring on the destruction of these three states. And a memorable lesson they have afforded to their neighbours; and to the world at large!

In Great-Britain it had required the operations of a century to amass the debt of £238,231,248, which during the early part of Mr. Pitt's administration created so much uneasiness. And during that century the brilliant and tedious wars of King William and Queen Anne, the Spanish war, two French wars, and the celebrated American war, had been carried on and maintained. In the course of little more than seven years, from 1793, was that alarming debt raised from £238,231,248 to £489,413,926; and a debt greater by nearly 13 millions created in these few years than had been in a whole century before; and by the expence of one war, instead of six which had been carried on in the preceding period. The annual charge on the nation for the debt existing prior to 1793 was £9,771,169; the annual charge for the debt at the close of the war was £22,144,564; and thus were the taxes increased by the late war to the amount of £12,673,395 annually. If any man is so inconsiderate as to account this a light matter, a single reflection will probably convince him of the contrary. The income of all the inhabitants of Great-Britain was computed by Mr. Pitt, when forming his tax on income, at 120 millions. The annual charge of the debt contracted during the war amounts to more than one ninth of this sum. More than one ninth, therefore, of the income of every man in Great-Britain is taken from him in perpetuity to defray the expences of the late war. Is this a loss for which the comforts, the enjoyments of every man must not be the worse? Or let us consider it in another way, as saved, and added to the productive capital of the country. Mr. Pitt, on the occasion above-mentioned, computed the annual profits of capital in this country at 15 per cent. This, reckoning by compound interest, doubles the principal sum in a period of between 5 and 6 years. In less than six years then, were the debt of the war to be annihilated, we should have a capital of £25,246,790 employed in the agriculture and manufactures of the country, greater than we shall have; and in less than 12 years we should have a capital of no less than £50,493,580 added to what will actually exist at that period. We leave our readers themselves to compute the sums taken from them to raise supplies within the year, by voluntary contributions, by tripling the assessed taxes, and by the tax of one tenth on income.

Will it be said after this that War to Great Britain

* B. 5. c. 3.

is a light affair? Though it do not actually turn back the fortune of the country, is it not an equal injury to any man when he is prevented from improving his fortune?

Another view of this subject is not even free from alarming suggestions. This country has hitherto borne the immense load of taxes imposed upon it, without stopping the progress of its industry, but who is prepared to say that it can go any considerable way farther? We have stated already the whole income of this country, according to the computation of Mr. Pitt, to be 125 millions. The gross produce of the taxes of last year, including the expence of collection, is £39,155,705. This is very near one third of the whole income of the kingdom. This is a proportion so enormous, that he must be a bold man who would wish to see the experiment of augmenting it tried. It is a new phenomenon in politics, to behold any nation sustain so great a proportion without impairing its powers. The system of taxation, so much more judicious in this than in any other country, has chiefly produced this effect. But, as Dr. Smith justly observes, "When the wisest government has exhausted all the proper subjects of taxation, it must, in cases of urgent necessity, have recourse to improper ones. The wise republic of Holland," he adds, "has upon some occasions been obliged to have recourse to taxes as inconvenient as the greater part of those of Spain." And he says, what indeed is certain, that such additions may be made to the annual expence of this country, as may, from irresistible necessity, render the British system of taxation as oppressive as that of Holland, or even as that of Spain.

Let us recollect the alarming declaration of Mr. Pitt, when defending his application to the Directory for Peace; that the national credit was reduced so low that he durst not attempt a loan equal to the supply of the year, without hazarding a national bankruptcy; and that he was obliged, before he could apply to the people for such a sacrifice as the direct expence of the war, to prove to them that peace was impracticable! Does any one reflect upon this approach to the brink of ruin by the magnitude of our debt, and yet has the rashness to express a wish that more had been added to it?

It is not a matter of light consideration to the governors of this country, that its debts were found to be at that height, when any addition must have tumbled down the fabric. The confidence men recovered on peace allowed the arrears of the war to be added. But this it could not have sustained till the war was at an end. Of the Income Tax, too, men were heartily tired. Nothing but the enthusiasm of the period, and the violent fears and hatreds which prevailed, could have persuaded them at the beginning to submit to it. They would not have borne it much longer. But if a Minister durst not have ventured to raise loans to defray the expence of war from fear of a national bankruptcy, and if he could not raise the supplies within the year, how was war to be carried on?

The same questions apply with mighty force to the commencement of a new war. Is it known that the debts of this country were so very lately at the highest pitch that the country could bear without an overthrow? Is it possible now that they can be in a condition to bear any considerable increase? The persons who wish the war renewed are so very inconsiderate as to say, that the fortune of the country has declined since the cessation of hostilities, and by consequence that its credit is less able to bear any additional burden. Who is doubtful, on the other hand, that a renewal of the income tax, or any thing equivalent, would not be practicable; and that the supplies could not be raised within the year? The people of this country are persuaded that it is not placed in a state of danger with regard to France, and they will not sacrifice so great a share of their comforts, as one tenth of their income carries with it, till they are made to see that there is more reason for it than the spirit of system, or the fears of any party.

A minister at this moment must be well assured of the ground on which he proceeds to hostile measures. If he proceeds to them with the intention of supporting them by loans, after the experience which Mr. Pitt so lately had, that a national bankruptcy must be the consequence, he ought to be beheaded before he goes any farther. And, on the other hand, he may be well assured, that the people of this country, who pay already one third of their income in taxes, cannot, and will not undertake the expence of a war out of the remaining two thirds—but a war of the last, inevitable necessity.

Mr. Editor,

As the interest of the Clergy of this kingdom is so deeply involved in the Bill concerning them, immediately before the Parliament, it was my purpose to have offered you some remarks upon it. These, however, I am induced to defer, till a sight of the Bill with the blanks filled up, can be obtained.

Allow me therefore to solicit a column in your paper of next week, by which time I hope to transmit my remarks. Concerning them I shall only add, that they appear to me of importance, or I would not obtrude them on the publick or yourself.

I am, Sir, Yours, &c.

L. Y.

NOTICES.

Russia.—Mr *Pfeiffer*, assessor at Petersburgh, and author of a treatise in the Russian language on the trade to India, which has experienced a very favourable reception, is appointed editor of a Russian commercial gazette, published under the immediate direction of Count Rumanzow, privy counsellor and minister of commerce. The first number, which appeared in February last, contains—

1. An Ukase or Imperial ordinance, laying a higher duty on white cottons, than has hitherto been paid, and ordering the minister of commerce to adopt severe measures against smugglers.

2. An account of the canal of Staess, and of the goods transported on the canal in the course of last year.

3. Foreign commercial intelligence.

4. The course of exchange of Riga, Mohylew, Astrachan, Petersburgh, Odessa and Liban.

5. An extract of Turner's journey to Tibet.

Mr. *Poliathowsky*, Russian counsellor of state, and member of the senate, has translated Dr. Smith's work on the wealth of nations into the Russian language, and received from his Imperial Majesty Alexander I. 5000 rubles to defray the expence of paper and printing.

Bavaria.—In the seventh Number of the Literary Journal, we made *honourable* mention of the memorable edict, by which the present Elector of Bavaria, Maximilian IV, introduced into his dominions the most complete religious freedom that ever was enjoyed by the subjects of any European power. The following rescript, by which that enlightened Prince has sanctioned the publication of a periodical work, undertaken by *Mr. Von. Aretin*, under the title of '*The Genius of the Bavarians*,' and intended to record and celebrate the most memorable acts of government, is an appendage worthy of the above mentioned edict. "During our reign we have constantly endeavoured to prove, both by public ordinances and deeds, that we know how to appreciate a reasonable freedom of thought, and the liberty of the press, and that it is our earnest wish to excite and promote in our dominions, literary activity and mental culture. We shall, therefore, the less obstruct your intention of editing a periodical publication, recording the most important transactions and events of our reign, as we are satisfied, *that every government which acts from pure motives has nothing to fear, but on the contrary, to expect the most beneficial results, from the publicity of its actions.* MAXIMILIAN JOSEPH, Elector.'

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MANNERS.—*On Duels.*—*Notices.*

POLITICS.—*Arguments in favour of Peace.*—*Notices.*

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Sir, Monticello, September 9, 1801.

I received duly your letter of August 31, in which you do me the honour to propose to dedicate to me the work you are about to publish. Such a testimony of respect from an enlightened foreigner cannot but be flattering to me, and I have only to regret that the choice of the patron will be little likely to give circulation to the Work: its own merit however will supply that defect.

Should you in your journeyings have been led to remark on the same objects on which I gave crude notes some years ago, I shall be happy to see them confirmed or corrected by a more accurate observer.

I pray you to accept the assurances of my respect and consideration.

Mr. DAVIS, *Occoquan, Virginia,* *TH. JEFFERSON.*

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NUMBER 18.] THURSDAY, MAY 5, 1803.

PHYSICS.

1. *Some Account of Galvani.*

LOUIS GALVANI was born at Bologna, the 9th of September, 1737. His birth was respectable, for several of his relations had distinguished themselves in law and divinity. Galvani made choice of the study of medicine, and married, when very young, the daughter of Professor Galeazzi, who possessed a high reputation in Italy. To this marriage his success in life is in a great measure to be ascribed; for he seems to have been chiefly indebted to his wife's relations for his appointment to the place of Professor of Anatomy in the University of Bologna. In that situation he published many important observations on comparative anatomy, especially on birds. His Essay on the urinary organs of these animals is well known. His reputation too, as a lecturer, became deservedly very high. But it was the discovery of galvanism, of which we gave an account in our last Number, that contributed chiefly to spread his reputation, and upon which his future celebrity will altogether depend.

His character in private life was excellent, and his domestic felicity with his wife is painted, by those who knew him, in glowing colours. Her death, after they had been married for thirty years, affected him severely. Indeed it was but the commencement of his misfortunes. During the troubles in Italy he had espoused the side of the old established government, and was stript of all his offices, because he refused to take the oaths of allegiance to the new Cisalpine Republic. Most of his relations perished by sudden or violent deaths, many of them in defence of their country. He had been for many years afflicted with stomach complaints, which, gradually increasing, at last occasioned his death. He died on the 5th of December 1798, at the age of 61.

2. *On the Oxides of Lead.*

In the present state of chemistry, nothing is of greater importance than an exact account of the number of oxides which every metal is capable of forming, and the properties and combinations of each. The science is deeply indebted to Mr. Proust, for the discoveries and observations which he has published on that subject. His dissertations on iron, zinc, tin, arsenic, copper, antimony, are master-pieces of sagacity. The information which they contain has proved of the highest utility, and has contributed, in no small degree, to the advancement of the science. In general he has found metals capable of combining with two doses only of oxygen. This is the case with iron, tin, arsenic, copper, antimony, and uranium. It seems also to be the case with zinc. But lead is an exception to the rule; for it forms three oxides. Mr. Proust indeed has published no professed dissertation on the metal; yet we are indebted to him for all the precise notions concerning its oxides that chemistry possesses.

According to him the first oxide of lead, or lead combined with a minimum of oxygen, may be formed by dissolving lead in nitric acid, and boiling the solution with plates of lead. The oxygen divides itself between the oxide already dissolved and the metallic lead, and the result is a yellow coloured salt, composed of very brilliant scales and exceedingly soluble in water. This salt is a compound of nitric acid, and lead oxydated to a minimum.

The second oxide of lead has a yellow colour, and contains nine parts in the hundred of oxygen. It may be obtained by dissolving lead in nitric acid, and precipitating by means of an alkali. It is this oxide which usually combines with acids, and forms the salts of lead. Thus *white lead* is merely the yellow or second oxide of lead combined with carbonic acid. It is usually composed of 100 parts yellow oxide, and 30 parts carbonic acid. It dissolves in nitric acid without decomposing it, and when precipitated by an alkaline carbonat yields exactly the original weight of white lead.

The green coloured powder obtained by calcining lead is a mixture of yellow oxide and metallic lead; hence the green colour which results from the combination of yellow and blue. In the same manner the powders obtained by calcining copper, tin, and antimony, are mixtures of the metals subjected to the operation, and of the oxides formed by the action of the fire.

The acetite of lead usually contains a small portion of carbonat mixed with it. Hence the reason of its becoming muddy when dissolved in water. If the water contains carbonic acid, the acetite is partly decomposed by that acid, and carbonat of lead precipitates. Hence the reason that solution of acetite of lead becomes muddy when we blow into it through a tube.

The third oxide of lead is of a flea-brown colour, and contains about 21 parts in the hundred of oxygen. It is obtained by causing a current of oxymuriatic acid gas to pass through red lead suspended in water. The lead gradually blackens and assumes a flea-brown colour. This oxide possesses several curious properties. It supports combustion like several of the other metallic oxides, and seems to be soluble in muriatic acid.

Mr. Proust, in his enumeration of the oxides of lead, does not mention the red oxide, which doubtless constitutes a distinct oxide intermediate between the yellow and the flea-brown.

3. *On the Stones supposed to fall from the Atmosphere. By* Vauquelin.*

The analysis of Vauquelin was only wanting to put the conclusions drawn by Mr. Howard from as very

* Jour. de Min. vol. 13. p. 308.

ingenious experiments on these stony bodies beyond the reach of doubt. This analysis has confirmed the results obtained by the British chemist in every respect. The stones examined by Vauquelin were three in number. The first was given him by citizen Saint Amans. It fell at Creon on the 24th July, 1790, at nine o'clock in the evening. It appeared in the air under the form of a globe of fire visible over the whole south of France. The second was given him by M. Darcet the son. It fell at Borbotan, near Roquefort, in July 1789. The brother of the late Darcet, who was curate of the parish, sent the stone to Paris with the proper documents. M. Lomet happened to be at Agen when the meteor appeared. He gave the following account of it to Vauquelin :—" It was a globe of fire very brilliant, emitting a light as pure as that of the sun, and about the size of a common balloon. It exploded in the air and then disappeared. Some days after the peasants brought stones which they said had fallen from the meteor. Their account was treated as a fable, they were derided, and nobody would accept of the stones." The third stone was given him by citizens De Dree and Saint Amand, and had been brought from England. It was the stone described and analysed by Howard, which had fallen at Benares in 1798, and resembled exactly those that had fallen in France. This last stone, freed as much as possible from the particles of iron which it contained, yielded the following component parts :—

48 Silica
38 Oxide of Iron
14 Magnesia
3 Nickel
— Sulphur a quantity not determined.
102

The stones from Borbotan and Juliac corresponded exactly with that from Benares, both in their appearance and in their component parts.

The analysis was conducted by M. Vauquelin, in the following manner:

1. One hundred parts of the stone reduced to a fine sand, passed through a silk seive in order to separate the particles of iron which do not pulverize, were treated with diluted nitric acid. A great quantity of nitrous gas was disengaged, the acid assumed a yellowish green colour, the powder became white, increased in bulk, and assumed an appearance which bore a resemblance to gelatinous silica. Some sulphur was perceived swimming on the surface of the liquid.

2. When the acid ceased to act, water was added, the liquid was filtered, and the undissolved matter, when dried by exposure to the air, weighed 64 parts.

3. As it was still slightly coloured, it was boiled with muriatic acid, which is known to unite readily with the oxide of iron. The acid acquired a greenish yellow colour and the powder became whiter. After this second operation the powder, previously dried in a platinum crucible, weighed only 47 parts.

4. The nitric and muriatic solutions were mixed together and ammonia added in excess to the mixture. The whole was heated for some time. By this operation the oxide of iron was precipitated. It was separated by filtration. When dried and calcined it weighed 38 parts.

5. The ammoniacal liquid had a light blue colour approaching to violet. The alkaline carbonats occasioned no precipitate in it; but the pure alkalies gave an abundant white powder, yet the liquid did not lose its violet colour. The white precipitate, when washed and dried in the air, had a greenish shade. It weighed 18 parts, but calcination reduced it to 13. This powder dissolved readily in sulphuric acid, and yielded, by spontaneous evaporation, prismatic crystals, having exactly the form and the taste of sulphat of magnesia. It had however a slight shade of green, and produced in a short time a metallic impression upon the tongue. To ascertain if this was owing to the presence of a metallic substance, the salt was dissolved in water and mixed with hydrosulphuret of potass. A voluminous black precipitate was formed, which when washed and dried weighed only two parts.

6. The ammoniacal liquid from which the magnesia had been separated by means of potass, was mixed with a solution of sulphurated hydrogen. A bulky black precipitate was formed, which weighed, when washed and dried, 7 parts. This matter, mixed with the two parts separated from the sulphat of magnesia, and heated to redness for a few minutes, exhaled the odour of sulphurous acid, and assumed a deep green colour bordering on brown, and weighed scarcely 3 parts.

This substance when melted with borax gave a hyacinth-coloured glass: mixed with sulphuric acid and diluted with water it dissolved only in part, a portion which had a metallic appearance refusing to combine with the acid; but the addition of a few drops of acid by affording oxygen favoured the solution. This solution by spontaneous evaporation yielded elongated crystals of a fine green colour.

These properties prove the substance in question to be oxide of nickel. For that is the only metallic substance which gives borax a hyacinth-red colour, ammonia a purplish blue, which forms with sulphuric acid a prismatic salt of a fine green colour, and which forms, with ammonia and acids, triple salts not precipitated by the fixed alkalies.

M. Vauquelin repeated this analysis, substituting muriatic acid in place of nitric, and obtained nearly the same results. Sulphurated hydrogen gas exhaled during the solution.

The method, employed by Vauquelin in the above analysis of separating iron from magnesia, is founded on a property, possessed by solutions of that earth in acids, where there is an excess of acid not to afford a precipitate with ammonia; a triple salt being formed not decomposable by an excess of ammonia. That this method may succeed, care must be taken that the excess of acid present be sufficient for the formation of the triple salt. The alkaline carbonats do not precipitate the magnesia from this triple salt.

The simultaneous precipitation of the portion of the oxide of nickel with magnesia had been already remarked, we believe, by Mr. Howard. It can only be accounted for by supposing an affinity to exist between these two substances. This must put chemists on their guard in future. Nickel may be present we see in a compound, and may in part escape detection by the usual processes.

4. *On Opium.* By Derosne.*

Notwithstanding the rapid progress which chemistry has made of late years, much is wanting to give it that degree of precision by which a knowledge of it may be rapidly attained. Chemistry must be considered always in two points of view: 1st, as a science; 2d, as an art. As a science, its improvement has been uncommonly great, and its general principles are easily acquired in consequence of the many excellent chemical treatises which have appeared in all parts of Europe. The number of persons acquainted with it amounts to several thousand, and they are continually increasing in every country. As an art, its progress has been equally rapid; but the number of those who are acquainted thoroughly with the practical part, is by no means to be compared with those that know its general principles. By chemistry as an art, we mean the practical knowledge of the method of analysing all the different substances which come under the cognizance of the chemist. It is this art which renders chemistry of so much importance; it is this art which constitutes the original cause of its whole progress. Yet scarcely any steps have been taken to make it generally known. It is not taught in any of the classes where the principles of chemistry are developed. No systematic treatise teaching the difficult art of analysing has hitherto appeared, and scarcely any dissertations on the subject, if we except those by Bergman, Kirwan and Vauquelin.

Hence the little progress which has been made in some parts of the science. Every practical chemist must grope for years in the dark, before he learns the difficult art of experimental analysis. He must himself discover the principles of the art. Thus, much time is lost, which a good treatise would have saved, and which might have been employed with much greater effect in advancing the science, than in raising the individual to the place which had been long ago attained by his predecessors.

What method have we laid down any where for analysing vegetable substances? We have one, it will be said, by Hermstadt. We allow that his observations are excellent, but they are altogether insufficient to serve as a guide to the analysis of the vegetable kingdom. Consult all the different vegetable analyses published of late years, those by Vauquelin always excepted, does any thing like plan appear in them? Do they not exhibit a want of method and even a want of leading principle? Hence the contradictions which so often occur in them, and the vague words which still perplex the chemistry of vegetables. These reflections were naturally suggested by Derosne's dissertation on opium, published in the Annales de Chimie for March last. It exhibits much ingenuity, and contains much instructive matter; but labours under the disadvantage of want of method and precision. Hence the difficulty of abridging it. We shall however make the attempt; as the extreme diffuseness of the original renders it not altogether suitable to the English taste.

1. Opium was treated with pure water, till all that was soluble in that liquid was extracted: The solution was transparent and perfectly liquid.

* Ann. de Chim. 45, 257.

a. It reddened the tincture of turnsol, but not that of violets.

b. The alkalies, their carbonats, lime and barytes water, occasioned copious precipitations in the solutions. These precipitates dissolved in acids, with the exception of that occasioned by barytes, part of which remained insoluble.

c. Oxalic acid occasions also a precipitate, but less abundant than the preceding.

d. The other acids occasion no precipitates, but on the contrary render the solutions more limpid if possible.

e. Acetite of lead occasions a very abundant precipitate, as happens to all vegetable solutions. Nitrat of silver occasions no precipitate.

From these experiments our author infers the presence of sulphat of lime, and another sulphat. When the solution of opium has been prepared with a small quantity of water it yields a precipitate when diluted; but this does not happen when prepared with a large proportion of water. Mr. Derosne considers this precipitate as resin. Hence he concludes that the extractive matter facilitates the solution of resin, when a small portion only of water is present, or when the extract is concentrated.

The opium solution was evaporated by a gentle heat to the consistence of a syrup. During the evaporation a small quantity of a resinous powder precipitated. On allowing the concentrated liquid to cool, it assumed a gritty appearance, indicating the presence of small crystalline grains. When diluted with water, a considerable precipitate immediately fell. The liquid decanted off, and concentrated again by evaporation, yielded a new precipitate when diluted with water. These precipitates, collected on a filter, and dried, exhibited a deep brown colour, and on a careful examination small brilliant crystals were detected mixed with the resin and extract which constituted the greatest part. Mr. Derosne attempted to dissolve them by means of water, but to no purpose. Boiling alcohol dissolved them readily, and on cooling, the crystals were deposited coloured by resin.

The opium solution deprived of these crystals was again evaporated; a soft ductile matter precipitated, which, when dried, exhibited the properties of resin. The solution, freed from it, yielded by evaporation to dryness an extractive matter somewhat less than half the weight of the crude opium originally employed.

2. This extractive matter was treated with ten times its weight of alcohol. A certain portion was dissolved and a brownish adhesive matter remained at the bottom of the vessel. This matter after being repeatedly washed with alcohol, had a bitter and saltish taste.

a. Water dissolved the half of it. The solution yielded abundant precipitates with muriat of barytes and oxalic acid. By spontaneous evaporation it yielded, 1st. crystals of sulphat of lime; 2. Crystals of sulphat of potass.

b. The portion of the brown matter which was insoluble in water exhibited the properties of *oxygenized extract.* It was insoluble in water and alcohol, and burnt with a resinous odour. It left a residuum when burnt composed of alumina and oxide of iron.

c. The portion of the extractive matter dissolved by the alcohol consisted of resin and extract.

3. The carbonat of potass poured into a solution of opium in water occasions a copious precipitate of a brown colour, a gritty appearance, and having very little taste.

a. Alcohol dissolves 3 fourths of it, and the solution yields crystals of a dark colour simliar to those obtained by dissolving in alcohol the precipitate procured by diluting the concentrated solution with water. The alcohol contains also a little resin.

b. The insoluble part was treated with water; a portion was dissolved. This solution on cooling let fall a white powder consisting of vegetable matter combined with lime. After the separation of this powder, the water had an alkaline taste, and gave a green colour to vegetable blues.

c. The portion insoluble in alcohol and water consisted principally of lime combined with vegetable matter and a little alumina.

d. The solution of opium, after the precipitate formed by means of carbonat of potass had been separated from it, yielded by evaporation, a few crystals, but Mr. Derosne was not able to ascertain their nature.

4. The residuum of crude opium, left behind after every thing soluble in water has been extracted, retains the peculiar smell by which that drug is distinguished. While moist it has the feel of a greasy body.

a. When treated with six parts of alcohol in the temperature of 120°, it yields a tincture of a deep red colour, which on cooling deposits abundance of crystalline grains coloured by resin. Another infusion of alcohol yielded the same crystals. The residuum being boiled with a third dose of alcohol, the liquid on cooling deposited an oily-like matter mixed with some of the same crystals.

b. The residuum, after being thus acted on by water and alcohol, consists only of woody fibres, &c. often mixed with sand and pebbles. Boiling water and acetous acid extract from it a little starch, mucilage and gluten.

c. The alcoholic tinctures being mixed together and the alcohol distilled off, a considerable portion of resin precipitated. The liquid still contained resin and the crystalline substance, held in solution, according to Derosne, by extractive matter. When heated brown flocks precipitate. These dissolved in alcohol yielded crystalline substance almost perfectly free from resin.

5. Mr. Derosne distinguishes the crystalline substance separated by means of alcohol by the name of *essential salt of opium*. When purified by repeated solutions on alcohol and crystallizations, it is of a white colour and crystallizes, in four-sided prisms, with rhomboidal base and rectangular sides. It has neither taste nor smell. It is insoluble in cold water, and requires about 100 parts of boiling water to dissolve it; and precipitates again when the water cools. The solution does not redden the tincture of turnsol. It is soluble in 21 parts of boiling alcohol, and in 100 parts of cold alcohol. Water precipitates it from this solution in the state of a white powder.

All the acids both mineral and vegetable dissolve it readily, even without the assistance of heat. When they are saturated with an alkali, the salt precipitates in the form of a white powder. The pure alkalies augment its solubility in water a little, and the acids, when the are not added in excess, precipitate it.

Ether and volatile oils dissolve it when hot, but on cooling they allow it to precipitate again in the state of an oily liquid, which gradually crystallizes at the bottom of the vessel in which the solution is contained.

When thrown upon burning coals, this salt takes fire and burns with considerable brilliancy. When held in a spoon over a candle it melts gradually like wax. When distilled in a retort it first melts, then swells; white fumes are exhaled which condense in the neck of the retort in the form of an oily matter of a yellowish colour. At the same time there passes into the receiver a liquid phlegm impregnated with carbonat of ammonia. Towards the end of the distillation carbonic acid gas, ammonia, and carbureted hydrogen gas are exhaled. There remains in the retort a spongy coal, very bulky, which yields traces of potass when burnt.

When treated with nitric acid it assumes a red colour, crystals of oxalic acid are formed, and the residuum has a very bitter taste.

All these properties taken together distinguish this substance from every other. Mr. Derosne considers it as the substance to which opium owes its peculiar properties. On giving small doses of it to dogs they were affected precisely as they would have been by opium. It is known that acetous acid or vinegar is one of the most effectual antidotes of opium. Mr. Derosne supposes that the acid derives this valuable property from the power which it has of dissolving the essential salt of opium; which, if we give credit to the theory of our author, owes its poisonous properties in some measure to its insolubility.

5. *On the Acid of Ants.*

Ever since the discovery of an acid in the *formica rufa*, by Fisher in 1670, chemists have occasionally turned their attention to the subject. Yet the nature of the acid, which these little animals contain, remained imperfectly known till the recent publication of Vauquelin and Fourcroy on the subject. These accurate analyists have demonstrated that the acid of ants is a mixture of the *acetic* and *malic* acids.

The ants, after being cleaned, were bruised in a marble mortar. A vapour exhaled so pungent as to hurt the eyes, and exactly resembling that of acetic acid. They were then allowed to macerate with alcohol for some days. The alcohol which had assumed a yellow colour was distilled. The acid liquid which remained was saturated with lime. A compound was obtained possessing all the marks of acetite of lime, or at least by treating the compound with sulphuric acid and distilling, acetic acid was obtained.

When a portion of the liquid, containing the acid of ants saturated with lime, was treated with acetite of lead, a copious precipitate was obtained, soluble in acetic acid. To ascertain the substance which furnishes this precipitate a quantity of the acid of ants was precipitated by means of acetite of lead and the precipitate treated with diluted sulphuric acid. The acid combined with the oxide of lead while the sub-

stance which had occasioned the precipitate dissolved in the liquid.

a. The liquid had an acid and nauseous taste. Lime water gave but a faint precipitate, but after some hours crystals were formed at the surface of the liquid and on the sides of the vessel.

b. The nitrate of mercury, silver, and lead occasioned abundant precipitates in it.

c. With barytes it gave a reddish solution of a saline and pungent taste which refused to crystallize. Potass did not separate the barytes, but carbonat of potass occasioned a precipitate. Oxalic acid occasioned a copious precipitation, but tartaric and citric acids produced no change. These facts indicated the presence of malic acid.

Besides these two acids, ants also contain a portion of resin, which is separated by alcohol.

6. *On the Alloys of Gold.*

The experiments of Messrs. Cavendish and Hatchett have proved that copper and silver are the only metals that can be employed for alloying gold coins. Iron does not destroy the ductility of gold, but it alters its colour. The same remark applies to nickel. Every variety of copper cannot be used to alloy gold. It must be perfectly free from lead and antimony. For it is singular, that the smallest portion of these metals, though too minute to affect the ductility of the copper itself, produces a sensible change in the ductility of gold, when such impure copper is added to that metal. When such an alloy of gold and impure copper is melted by hand, it loses its ductility altogether; but it returns or recovers its ductility when melted in iron vessels. English copper does not answer for making an alloy of gold. Swedish copper, called *grain copper* is used for the purpose. Such are a few of the curious remarks made by Cavendish and Hatchett in their late experiments on the alloys of gold.

LITERATURE.

1. *Royal Academy.*

ACCORDING to the annual custom, since the commencement of this Institution, their Majesties, accompanied by three of the Princesses, on Friday, visited the Rooms, previous to the opening of the Exhibition. And, on Saturday, the annual Dinner of the Members of the Academy was given, to which were invited, as usual, since the death of the late President, those noblemen and gentlemen, who have the means of promoting that branch of the Arts, which has attained to any tolerable degree of excellence in this country.

Historic painting seems to be nearly abandoned; and but for the wealth and vanity that require portraits, the Academy would soon be shut up.

On Monday the rooms were opened, and soon filled by sociable and affectionate multitudes to visit their acquaintance and friends—of whom we shall give some account, when we have noticed such attempts at historical and allegorical painting, as the Artists have thought fit to exhibit.

Mr. West, the President, has only one picture, No. 135, *Cupid sleeping on a Bed of Roses*, from Anacreon; small, and well drawn; but a subject requiring greater familiarity with classic images, and classic costume, than can be possessed by the imagination of Mr. West.

He had sent in a new edition of his *Hagar in the Wilderness*; but the Council, who at all times bear with great impatience his nominal precedence, have obliged him to withdraw it.

We think this measure as injudicious as it is severe. Books whose first editions were infinitely superior to any of the productions of Mr. West, have been revised, corrected, and re-published: and we wish the best of his paintings could be re-produced with the same advantages.

Mr. Fuseli, who seems to be as much misled and inconvenienced by learning misapplied, as the President is by the want of it, has destroyed the effect of figures well drawn, and well coloured, by extravagant gesture, and attitudes on the verge of impossibility.—No. 97, would have been a charming picture, if the figure of *Achilles* had not been thrown into the attitude of a rope-dancer.

The subject is 'Thetis and Aurora, the mothers of 'Achilles and Memnon the Ethiopian, presenting 'themselves before the throne of Jupiter; each to beg 'the life of her son, who were proceeding to single 'combat. Jupiter decided in favour of Achilles and Memnon fell.' The subject is from *Eschylus*.

J. Opie, R. A —No. 16. *The Visit to the Cottage, or Cloathing the Naked.*

This is a pathetic picture; where misery is a little too fine; and the gratitude of the mother a little too dramatic. In the composition and grouping, however, there are no figures of mere convenience. All are linked by a common design, which harmonize the action and the repose.

Mr. Bertie Greatheed, jun.'s attempt, in the *Cave of Despair*, No. 213, is very bold, but promising in so young a man. The subject is from the *Fairy Queen*.

It has errors in the composition and management, which he will learn to correct; for we believe he is now at Paris, contemplating the largest and finest collection in the world. There he may learn, that every important composition has an obvious point, to which group, form, contrast, and colouring, are all subordinate; that expression is equally remote from insipidity and grimace; and that the effect of tragic scenes should be terror and not horror.

Of Portraits in our next.

2. *The Progress of Maritime Discovery from the earliest Period to the close of the eighteenth Century. By* James Stanier Clarke, *4to, vol. first,* (1021 *pages.*) *London,* 1803.

It is singular, that in this commercial country, no Work had previously appeared, whose professed object was to give an extensive system of Hydrography: this is the laborious task Mr. C. has undertaken. He observed—"that in all the preceding Collections of Voyages and Travels, Hydrography had been considered in a secondary, and frequently in a subordinate point of view. The great objects of this branch of science, so interesting to a commercial nation, and so

important to its navigators, were dispersed through an infinity of volumes, and often erroneously given. Authorities had been seldom cited; the claims of nations and individuals to the merit of their respective discoveries were too faintly traced; the remarks of the navigator and traveller, united in the same work, destroyed that connection and arrangement each might separately possess; the dissertations and remarks of nautical men had multiplied until some of the earliest, and most valuable were nearly lost amidst the mass of information that existed; so that it appeared necessary at the close of the eighteenth century, to arrange, and separate the stores which preceding ones had afforded; and thus to form a general history of Hydrography, equally interesting to the navigator, the statesman and the merchant, and to readers in general.

"Such is the general outline of my plan, which notwithstanding the number of volumes marshalled in dread array before me, I should imagine might be executed in about six, or at the utmost in seven thick quartos. The Voyages of the present reign alone amount to more than twice that number. I wish not, even if I possessed the ability, to supersede the valuable collections that exist; but am anxious to form a work, which shall produce a systematic reference to the contents of *Hakluyt*, *Purchas*, *Thevenot*, *Churchill*, *Harris*, and *Astley*, and thus render them more generally known, and by comparison with later productions, more correct. An *explanatory Catalogue* of Voyages, and other Philosophical publications connected with the progress of maritime Discovery, will enable the merchant, and the man of science, to form that library, which opulent individuals, in the first commercial nation in Europe, should have an ambition to possess.

"A work of this extensive nature, if executed as it ought, will demand a considerable portion of secluded leisure; much tranquillity of mind; and some prospect of commendation from the country it was intended to serve, and the profession, whose information it was originally brought forward to promote. The first volume is now before the public, and I await its decision with respect. The second would give the *Portuguese Discoveries* in India until the year 1546; it would then illustrate the enterprise of our countrymen, who soon followed the same track; might possibly mark the slow, but extirpating progress of the *Dutch*, and give a general view of the islands in the *Indian Ocean*, as discovered by different navigators. This completes the second great division; and the attention of the reader should then be directed to that branch of discovery which sprung from the *School of Portugal*, under the forced and ungrateful patronage of *Spain*."

We doubt not that Mr. Clarke has already weighed the magnitude and envy of this task; and we hope he is aware, that the ground he has chosen to stand on, will probably be disputed with eagerness, and sometimes with asperity. He must therefore put on that *panoply* which every literary man must occasionally wear. Some persons will be offended that he has chosen a subject they had intended to discuss; others will be ready to attack and abuse a writer who has dared to appear out of a particular circle; *Mundungus*, and *Snuffungus*, will both put on their spectacles to review this volume; and Mr. C. must not flinch, if he finds that there are monopolies in literature as well as in commerce.

Having premised thus much we now proceed to our task:

The *Prospectus* which some time ago announced the Progress of Maritime Discovery, particularly excited the attention of the public, as the author declared, that the work was undertaken under the auspices of *Earl Spencer*, when at the head of the Admiralty Board. This nobleman, has therefore, we presume, behaved with the courtesy of literature to Mr. Clarke, and smoothed many of the difficulties, which in a work of such magnitude, would unavoidably present themselves: Mr. Clarke however does not specify what assistance he has thus received, nor has he marked that official information, which we expected to have found communicated by the board. In this respect the expectations of the public, which had been raised very high, will be disappointed; for either Mr. Clarke's patron treated him as Lord Chesterfield treated Johnson; or else Mr. C. which we can hardly suppose, has inadvertently blended this valuable information with the general mass of his work.

Yet if we compare the present volume, with all the preceding Collections of Voyages and Travels, we must acknowledge that the author has rendered an essential service to his country; and has certainly surpassed his predecessors. The faults which appear in the arrangement of his materials, are not so great as those which have been long complained of, in *Hakluyt*, *Purchas*, *Harris*, and even *Astley*. The style also of Mr. C. which is already known by his Sermons, on the Character, and Professional Duties of Seamen, is perspicuous, elegant, and terse. The following observations on the contest between Rome and Carthage, besides its originality, reflects much credit on the author's heart:—

"In the conquest of *Carthage*, historians have only beheld the subjugation of a mighty republic overwhelmed by its own factions, and the arms of Rome; whereas, in truth, the destruction of the metropolis of *Africa* affected the whole system of civilized life throughout the world. The triumph of Rome was THE TRIUMPH OF THE SWORD over the milder and more beneficent reign of commercial power. When *Carthage* fell, the naval and mercantile character was buried amidst its ruins, and the military mariners of Rome came forward to subjugate and to delude mankind. What a field for reflection is here open to the historian: had *Carthage* triumphed, and the *Roman* power been subdued, how greatly would the progress of nautical science have been advanced; whilst the various nations of the globe, united by the golden chain of commerce, might have cultivated the arts of peace, and respected the influence of the trident. The discovery of the *Cape of Good Hope*, and of *America*, would have afforded at an earlier period an ample scope for the genius of ancient commerce, whose resources and influence, increased with the lapse of ages, would thus not only have meliorated the condition of mankind, but would also have prevented the monopoly of power, and the long night of slumber. The scenes which mark the establishment and decline of the Roman empire, could not then have disgraced the page of history, nor would the actions of a Caligula have insulted the dignity of human nature."

The general mass of information which the author has collected into the present volume, must prove of infinite service to professional men, whose library is necessarily contracted to a few books. A greater degree of chronological order has also been observed, in this volume, than in any Collection of Voyages that has appeared, of the same extent. We

need only refer to the first volume of *Astley* to be convinced of this. Mr. Clarke would however have given a still greater degree of order and perspicuity to his labours, if he had added another section to the introduction, and made it contain what now forms the first section of the first chapter.—His concise view also of Indian History would have been better placed at the close of the third section of the introduction. In the body of this work, the page is too much surcharged with notes; and though the author may plead the authority of *Bayle*, in a work of general reference; it would have been better, and less labour to himself, if some of the notes had been introduced into the text.

The [illegible] in which we differ from Mr. Clarke, and respecting which he appears to merit the greatest blame, is for having placed his faith so implicitly on Mr. *Bryant*. The learning and abilities of this scholar have dazzled the judgement of our author, and though he candidly acknowledges the infatuation, we lament that he did not rather refer to more original writers. Much as we respect Mr. *Bryant*, we cannot admire his System; and though it gives a greater plausibility to the history of the earliest periods, it is too much founded on visionary conjecture, to be admitted as historical authority. Nor are we singular in our opinion, Mr. Clarke will find it ably supported by the observations of that learned critic, Wyttenbach, in the first volume of his *Bibliotheca Critica*, who there has given a most decided opinion against the system of Mr. *Bryant*.

(*To be continued.*)

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3. *Account of the Life and Writings of* Thomas Reid, D.D. *By* Dugald Stewart, F.R.S. *Edinburgh.*

It is with singular pleasure that we point out this memoir to the attention of our countrymen. The genius and character of a great philosopher delineated by a man of congenial talents, who possessed the advantage of intimate acquaintance with the subject of his description, and the faculty of describing with accuracy and elegance, cannot fail to yield both amusement and instruction.

In the life of a man of intellectual eminence, the documents respecting the most interesting particulars are almost always the most defective,—the train of circumstances, we mean, which served to form his mind, the exercises by which it acquired its strength, the motives which upheld its ardour, and the journal of its progress from one degree of attainment to another. What important assistance should we derive toward the training of young minds to future eminence, had we the history of the intellectual progress of but a few of those who have risen to mental excellence minutely disclosed! The sanguine speculator can hardly forbear supposing that such insight might be obtained into the means of producing mental virtues, that we might make as many great men almost as we please.

Unfortunately many of the circumstances which operate most powerfully upon the rising mind are known only to the individual himself; they have produced their effect at a period when he is not yet prepared to estimate its importance; he has often forgotten them by the time he has attained that maturity which would enable him to judge correctly of their effects; frequently he never thinks of recalling them; and more frequently still is averse from taking the trouble of recording them for the sake of others. It is the man himself who alone is capable of writing the history of his mind; and it is sincerely to be regretted that so few men of eminence have thought of conferring this benefit upon posterity. How much is the world indebted to Franklin for that fragment of his life which he left behind him! And how instructive a monument, with all its imperfections, is that memoir of himself which Rousseau has given to us under the title of his Confessions! Impressed with these ideas, it was with pungent regret we learned from Mr. Stewart that the last illness of Dr. Reid intercepted the design of collecting such facts as his papers or memory could supply, with respect to his life, and the progress of his studies, a task which he had undertaken in consequence of the truly philosophical suggestion of his friend and kinsman Dr. Gregory.

Incapacitated, from the want of materials, for furnishing that important part of the history of the subject of his memoir, which related to the formation of his mind, and deprived, by the uniformity and simplicity of his life, of those incidents which throw light upon a character by exhibiting it in new and various situations, Mr. Stewart had little in his power to do but to illustrate the nature of that genius which the subject of his memoir possessed, and estimate the degree of its eminence, by an examination of his writings. And we cannot but approve of the resolution of this judicious biographer expressed in the following words: "I have attempted," says he, "to the best of my abilities, (instead of retailing detached fragments of conversations, or recording insulated and unmeaning occurrences), to communicate to others the general impressions which Dr. Reid's character has left on my own mind." That Mr. Stewart has executed this undertaking with uncommon success we believe will be questioned by no man of understanding and taste who shall peruse this little memoir. Few as the particulars are which he has mentioned of the life which he meant to record, he has exhibited a picture distinct in the outline, and not devoid of vividness in the colouring. He has presented a life, however simple and unvaried, truly distinguished by the philosophical virtues, executing the important offices of husband, of father, of a Christian pastor, of the teacher of youth, with exemplary fidelity; a life devoted to the severest, the most sublime and important studies, and distinguished for eminent success in them; a life remarkable for the command which it manifested its owner to possess over his passions; and a life eminent for proofs of the quickest and strongest benevolence toward his fellow creatures.

We cannot however help inclining to the opinion that Mr. Stewart, from an over anxiety to avoid the abuse of details, into which some biographers have fallen, and to escape the imputation of tediousness even from those not peculiarly interested in the history of a simple philosopher, has run a little into the opposite extreme. It would surely have been not a little instructive to have learned from Mr. Stewart some of

the habits of study of Dr. Reid, with which he cannot fail to be acquainted. Was there no peculiarity which distinguished these habits? A very fine instance of that species of information which we here miss, may be quoted from Mr. Stewart himself, in his life of Dr. Smith; where he tells us that Dr. Smith dictated all his writings to an amanuensis, and Mr. Hume wrote all his with his own hand.

What we regard as the most valuable part of this memoir is the view of the spirit and scope of Dr. Reid's philosophy. We have long regretted that the writings of this philosopher, the first who in the science of Mind deserves the title of Interpreter of Nature, should be so little known, especially in the southern part of this kingdom; and we fondly hope that the illustration here afforded of their high merits, and the exposure of the prejudices which have been raised against them by bold censurers, who never took the pains to understand them, will pave the way to a more general diffusion among our countrymen of the advantages which a careful study of them cannot fail to produce.

The distinguishing characteristic of the philosophy of Reid is this; that whereas all his predecessors in the study of mind employed themselves in forming arbitrary theories, as Descartes in the study of the material world accounted by vortices for the motions of the heavenly bodies, Dr. Reid, on the other hand, adopted the inductive method followed by Sir Isaac Newton, and by an examination of the phænomena of mind of which we are conscious, endeavoured to rise to the general laws which regulate our mental operations. The illustrations which Mr. Stewart has stated of the absolute necessity of following this method exclusively in the study of mind as well as of matter, of the merit of Dr. Reid in setting the first example of this just mode of enquiry, and of his success in the prosecution of it, deserve the greatest attention. The praise indeed of the inductive method of philosophising is now in every body's mouth, but very many seem not to know what it is they are praising. It is at least no uncommon thing to find an author set out with a warm panegyric on the inductive philosophy, and the *regulæ philosophandi* of Newton, who afterwards fills his book with nothing but extravagant and unfounded theories. Mr. Stewart in this sketch, and in his *Elements of the Philosophy of the Human Mind*, has done more to diffuse just notions on this subject, than any author of the present age with whom we are acquainted; and it was with singular pleasure we observed here an intimation that he means still farther to prosecute the subject, and to illustrate more fully the application of the analytical mode of investigation to the subject of mind.

Mr Stewart has classed the objections stated to the philosophy of Reid under four heads.

1. That he has assumed gratuitiously, in all his reasonings, that theory concerning the human soul which the scheme of materialism calls in question.

2. That his views tend to damp the ardour of philosophical curiosity, by stating, as ultimate facts, phænomena which may be resolved into principles more simple and general.

3. That by an unnecessary multiplication of original or instinctive principles, he has brought the science of mind into a state more perplexed and unsatisfactory than that in which it was left by Locke and his successors.

4. That his philosophy, by sanctioning an appeal from the decisions of the learned to the voice of the multitude, is unfavourable to a spirit of free inquiry, and lends additional stability to popular errors.

In his reply to these objections, Mr. Stewart has not only set the merit of the writings which he defends in a clearer light, but has taken occasion to add various illustrations which will not a little facilitate the study of these writings to those who for the first time undertake it.

The merit of the writings of Reid with regard to the future labours of the philosopher, and the progress of the science of mind, by illustrating the true mode of philosophising, and setting the first example of the practice, is the chief point which Stewart has endeavoured to illustrate. But there is another species of utility possessed by these writings which deserves to be pointed out, their unrivalled efficacy in leading a young mind to think. By the perspicuity of expression which Reid employs, and the uncommon clearness of his conceptions, he excites the reflection of his readers upon their own mental operations so skilfully, that they are scarcely sensible of the exertion. And unquestionably the finest school for this most important and difficult of all acquirements, the power of reflecting on the operations of our own minds, is the writings of Dr. Reid.

One of the chief things too which mislead our thoughts, and perverts our reasonings, is the ambiguity of words. And one of the most important securities which we can possess against the false reasoning, either of others or of ourselves, is the faculty of detecting with readiness this ambiguity. Of all the productions yet offered to the world none are to be compared with Reid's in their power of communicating this important faculty. He has pointed out with the greatest acuteness the ambiguity in a great variety of the most common terms; and has shewn the fallacy of so many arguments to depend entirely on this particular, that the person who studies his writings becomes habituated to this species of detection, and is in a great measure delivered from the danger of being misled by it.

The accurate use of language is the last important lesson we shall mention which the student may derive from the writings of Reid. The inestimable importance of this, either to ensure success in our inquiries, or to communicate our ideas to others, needs no illustration. It is remarkable that in the subject of mind, where attention to this circumstance is of the greatest importance, Dr. Reid was almost the first man who seems to have attempted it. His writings are so remarkable for this improvement, and the advantages of it are so visible in them, that it is scarcely possible for the student not to become enamoured of it. It is impossible, too, that from the observation of the accurate use of language in these writings, he should not acquire, together with the taste for it, the possession also in some degree of that important advantge.

4. *A Letter to a Noble Duke on the incontrovertible Truth of Christianity. Printed by* Seagrave, *at Chichester, for* J. Robson, Hatchard, *and* Longman.—(12mo. 88 pages.)—*Dedicated to the* Duke of Leeds.

This work, as the author informs us in his Preface, is a re-publication of Mr. Leslie's *Short and easy Method with the Deists*; somewhat abridged and curtailed, so as to simplify and concentrate the argument.

The original Author, adds the Editor, was a man of singular goodness and sincerity; and of superior talents and education. He was not originally intended for the Church; but was educated for the Bar, and trained up to the habits of deep thinking and close reasoning in the study of the law. At length, weary with the dryness and intricacy of that study, and disgusted with the contentious part of the profession, he wholly relinquished it; and applied himself to Divinity. He took Holy Orders at a time of life when his judgment was in its full maturity; and when his theological studies, being engrafted on his forensic attainments, eminently qualified him to stand forth the able and undaunted advocate of true religion. This he did with the purest zeal upon all occasions: several of which occurred to call him forth, during the two last years that James II. remained on the throne; especially in the North of Ireland, where Mr. Leslie then resided, and was Chancellor of the Diocese of Connor. It is pleasing to record the character given of him by his co-temporary Dr. Hicks: 'Consummate learning attended with the truest humility, the strictest piety without the least tincture of moroseness, and conversation to the last degree lively and spirited, rendered him the delight of mankind; so that he made more converts to a sound faith and a holy life, than any other man of his time.'

Although he had been a zealous opposer of all the arbitrary measures of the Sovereign in Ireland, his principles did not allow him to take the oaths to Government at the Revolution. Being therefore deprived of his preferment, he removed to England; and was here very generally esteemed, as a truly good man, and a most sound and able divine.'

The plan which Mr. Leslie followed is thus described:

"Now the method I shall take is, to lay down such rules or marks, as to the truth of matters of fact in general, that, where they all meet, such matters of fact cannot be false: And I shall then proceed to shew, that all these rules DO meet in the matters of fact of Moses, and of Christ; and that they do NOT meet in the matters of fact of Mahomet, and the Heathen Deities; nor can possibly meet in any imposture whatsoever.

The Rules are these:

"I. That the matter of fact be such, that men's outward senses, their eyes and ears, may be judges of it.

"II. That it be done publicly in the face of the world.

"III. That not only public monuments be kept up in memory of it, but some outward actions be performed.

"IV. That such monuments, and such actions or observances, be instituted, and do commence from the time that the matter of fact was done."

The learned Dr. Middleton employed himself to find out some false Fact to which the four Marks might be applied; and this he did for twenty years together, without being able to find one: this he confessed himself to Archbishop Secker.—(p. 86, *Note*, see also Encylop. Britan. *Article* Theology.)

We hope the excellent intentions of the Editor will be accomplished by the present compendium; in the execution of which he has shewn himself perfect master of the original.

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5. *Of Literary Institutions.*

Mr. Editor,

In the course of my reading the public papers, I was happy to learn, that such an establishment as a Literary Society on an extensive plan was proposed in France—the principal object of which was to encourage men of genius, who distinguished themselves by writing books of merit, or who made any new discoveries in the Arts and Sciences, or otherwise formed any judicious arrangements that might tend to increase the stock of general knowledge, and promote the utility and happiness of mankind.—(*Qui proposuit, meretur laudem.*

Such an establishment, if planned with wisdom, and conducted with prudence, might be attended with many salutary effects. It would tend to excite a desire for general knowledge among the general class of mankind: it would raise a spirit of emulation among the learned to excel in the different branches of Literature to which their genius pointed: it would be the means of discovering men of parts who otherwise might have lived all along in obscurity

The expence attending the formation of such a National Institution would be very inconsiderable indeed. There are few persons, it is presumed, in the British Empire, possessed of any capital, but who would cheerfully contribute to the support of such a liberal establishment. The establishment might be denominated, "*The Imperial Literary Union of Britain.*"

From having the example of such a National Institution, in time, the different counties and shires would be induced to form similar establishments for objects of less importance; such as encouraging the education of the lower class of mankind; forming subscription schools; granting premiums to teachers who made the best scholars, and to scholars who distinguished themselves among their fellows.

These associations being once formed in counties and shires, by degrees parishes would see the advantages resulting from them, and would not fail to form similar Parochial Institutions, so that in a short period the whole British Empire would become a Literary Empire; and in its different divisions and subdivisions, into kingdoms, provinces, counties, shires and parishes, would emulate each other in trying which would make the greatest advances and improvements in general knowledge.

I am happy to see by your Journal, that lectureships for improvement in philosophy are established in different towns in England—I hope they will become more general—Perhaps by your inserting these hints, it may tend to rouse the mind of some friend to Science to say something more in the behalf of learning, and in the meantime, you will oblige a constant reader. W. M.

Ultima Thule, 19th March, 1803.

6. *On the ancient itinerant Minstrels.*

Mr. Editor,

It is obvious from numerous arguments, and I believe generally acknowledged, that the Poems, which we have received from the ancients, were sung by them in their feasts and on other particular occasions. This, we find, was the custom so far back as the age of Homer. In the Odyssey we find several instances of it, and it is even reported, that the bard himself was *an itinerant minstrel. From these observations it appears singular, that our curiosi in antiquities should testify no solicitude to recover some fragments of the rude music of those times. Franciscus Niger, an author perhaps little known, has very ingeniously drawn up a table of their measures, which though not intelligible to me, might in the hands of some of your learned correspondents prove as interesting to the public, as amusing to themselves, when elucidated. I have found them myself in a Paris edition of Virgil, printed in 1500, in which is quoted a passage from the above author. Though somewhat obscure, from the antiquity of the type, I have made it out for the better information of your readers. "*Carmina à canendo dicta sunt: quia nisi decantata fuerint, divinum nomen in turpissimum fœdissimum convertunt: vocalis vero harmonia in voce consistit; qua composita carmina decantantur. Hujus species sunt quinque scilicèt, heroica gravis, heroica bella, elegiaca, sapphica et lyrica.*" Should you express any desire to see them, I will send you a *fac-simile*. Your's,

March 25. Σ.

* See Blackwell's Inquiry into the Life and Writings of Homer.

MANNERS.

Mr. Editor,

THE remarks you offered in your last Journal on the subject of Duelling were at least seasonable. It is a subject to which our attention is too often directed, but on which, as you justly observe, it is difficult to form any determination, and it is certainly more difficult to effect any change in the common modes of thinking, and in the common practice. The most rigid moralists have agreed to speak with reserve on a subject which they presume requires great delicacy and cautious interference. Even the Address from the Society for the suppression of Vice declares, that "it is not their intention to shock the feelings of modern life, by attempting to circumscribe those ordinary gratifications, which the enlarged freedom of the present times has sanctioned and prescribed." This is surely making great allowance, for what is it that may not shelter itself under "the feelings of modern life?"

Without, therefore, employing the usual arguments against duelling, founded on the laws of heaven or earth, I should be glad to know whether the continuance of the practice does not in a great measure arise from what some, in this case, may chuse to call the "*glorious* uncertainty of the law." What does the nineteenth Article of war prescribe? "Nor shall any officer or soldier upbraid another for *refusing a challenge*; since, according to these our orders, they do but the duty of soldiers, who ought to subject themselves to discipline: and we do acquit and discharge all men who have quarrels offered, or challenges sent to them, of all *disgrace* or *opinion* of *disadvantage* in their obedience hereunto: and *whoever shall upbraid them*, or offend in this case, shall be *punished* as a *challenger*."

No terms can be more express than these, but it is equally certain that they are of no kind of use. There are other ways of disgracing a man than by *upbraiding* him, and this law is evaded with great ease and safety by profound silence, or what is called "sending a man to Coventry." In what a situation then are officers of the army? punished if they accept, and punished yet more severely if they refuse a challenge. The only effectual remedy, therefore, must be, to introduce new habits of thinking, or feeling, on the subject of honour, and this might gradually be done by the influence of high example. In the course of half a century the point of personal honour might be rendered obsolete, and no courage be considered as tried, that has not been tried against the enemies of our country. Yet my hopes of such a salutary change are not very sanguine, since the same absurd principles may be found in the very highest ranks as in the lowest. The primary motive for duelling among military and naval men is the *establishment* of their courage, or the *prevention* of any suspicion or *imputation*. With younkers, therefore, who have not "fleshed their swords," this may be an apology, but what shall we say, when men go out to adjust their private disputes in this way, whose whole lives have been a demonstration of undaunted courage in the most perilous circumstances? Is it forgotten that not many months ago, a noble Lord, immediately after he had atchieved one of the most brilliant victories of the late war, with a force totally disproportioned to that of the enemy, received and accepted a challenge from another Admiral as brave as himself? Was it necessary for such men to prove their courage? The question is surely an insult to the human understanding.

Still, Sir, let it be remembered that the proof of *courage* was, and must have been the origin of the duel, (for the *personal combat* of ancient times was an affair of a very different nature) and this being the case, permit me to advert to what is hinted at in your last Journal, respecting the extension of the duelling principle to "members of parliament, barristers, divines, physicians, apothecaries, attornies, merchants, bankers, and private persons of various denominations." Your paper remarks that "it will require some fresh illustrations of the necessity of duelling, in order to prove that these gentlemen have a legitimate right to be included in the *legion of honour*."

An humble attempt to afford these illustrations is the chief purpose of my present communication, and with Sir Roger de Coverley, I think "much may be said on both sides." In the first place, it must be observed, that personal courage, although it be most interesting to gentlemen of the army, is not limited to them. The reputation of it is *every thing* to them, but it is *something* to men of all ranks, something highly useful, much applauded, and therefore naturally to be desired. Military men have continual opportunities of earning it, and it is *expected* from them; the want of it is *criminal*; but in private life, there are few

opportunities of shewing it, and those accidental; courage is no man's *business*, and the want of it is no crime, although an inconvenience. Yet all men are susceptible of an *affront*: all can equally feel an indignity, and the custom of the times prescribes no other method of resenting it than what is adopted by military men. But although this be undeniable, we must observe that custom, or public opinion, has not yet done that for private characters which it has done for soldiers. Private duelling, therefore, if I may so call it, is not so generally sanctioned, and it requires a certain rank in life to prevent it from becoming an object of public ridicule. Every person will be sensible of this who attends to the events of the day, and the remarks which are usually made upon them. There is something grand and imposing in the sound of the words *banker* or *merchant*, and we read of *their* duels with great gravity, and look to their quarrels as to a public concern. But let two shopkeepers, two apothecaries, or two attornies take the field, and they are immediately satirized in prose and verse; and may think themselves happy if they escape the print shops. Yet why should we think *their* sense of injury less acute than that of other persons embarked in commercial pursuits? The distinction is surely frivolous, but we know it is common: we know it is sanctioned by public opinion. A few day days ago, one of our courts was applied to, for a rule against an apothecary who had challenged a physician. The provocation was, that the apothecary had altered the doctor's prescription; here in strict propriety the doctor ought to have challenged the apothecary, but he contented himself with writing another prescription, and sending it to be made up by another apothecary. Such cases have of late been common, and would it be very extravagant to suppose that mortar-thumpers and quill-drivers were secretly bribed by some reforming society, to bring duelling into ridicule?

I have, however, allowed, that affronts may take place in private life which may *as lawfully* be resented by the sword, as those of the army or navy, and those affronts I will suppose to be such as attach to character, honour, veracity, or integrity. But it remains now to be stated on the other hand, that although this sounds very well in theory, it is really nothing in practice. It is a defence of which they may avail themselves in the gross, but it is nothing when they come to the detail. Of the many duels that have been fought, or challenges sent, between private persons, how many have been occasioned by impeachments of their *professional character*, or how many of their quarrels have been in the remotest degree connected with their *professional talents*? The number, I suspect, will be found very few. And here is the *irreconcileable difference* betwixt *their* duels and those of *military men*, that the latter are *ever* occasioned by one *leading feeling*, a regard for their *professional character*, and are prompted by *one cruel necessity*, the *opinion* of their *fellow-soldiers* and of the *public*.

To suppose the contrary will bring on a train of whimsical reflections, which, however, I have no wish to repress. We all remember when the late Chancellor of the Exchequer accepted a challenge, and on the day appropriated for the duties of that religion, to preserve which was one motive of the war, went to Wimbledon, and received his antagonist's fire. The question with the public at large on that occasion was, whether Mr. Pitt had any very urgent necessity to prove his *courage*? Whether fighting was essential to his official situation, and if so, whether it was necessary to him as First Lord of the Treasury, or as Chancellor of the Exchequer? And those who allowed, for the sake of supposition, that bravery might be requisite, were yet prompted to inquire, whether any doubts could be entertained of *his* courage, who had held the office of Premier, and defended the Treasury garrison for 15 years, against the greatest combination of besiegers ever formed; who had reduced the enemy from between 2 and 300 effective men to a small *corps* not exceeding sixty, and who, above all, had made that grand *sortie* in the winter 1792-3, and captured some of the bravest of the enemy, who enlisted afterwards in his own service? Could this man's courage be doubted? Or was it necessary for him to prove it by going to Wimbledon, and making that apology, under Abershaw's gibbet, which he refused upon the Treasury Bench?—These are questions to which no satisfactory answer has yet been offered, and it yet remains a point undetermined, how far a minister of state is obliged to vindicate his conduct by powder and ball.

We have heard of other duels by members of parliament, which, however, had no relation to their professional characters. The dispute was not, which was the greatest orator, or the most zealous patriot, but (in general) whether a member of the senate was at all times obliged to keep a civil tongue in his head? a question which may be adjusted by the cry of *order*, and the correction of the *Speaker*, much more effectually than by the cry of *fire*. Indeed the general prejudice is so strong against this mode of settling *debates*, that I presume very few of our senators think it any part of their *qualification* to "snuff a candle with a pistol at twenty yards."

We have heard likewise of duels in which one of the parties was a clergyman. Those who incline to be grave on such a subject want no aid from me to supply them with apposite reflections. But the cause of these disputes never had any connection with their profession. They did not take the field for high church or low church: they did not put themselves in the way of martyrdom in defence of the articles or the homilies. Of two instances of the kind which present themselves to my memory, in the one, the dispute was concerning a horse, and in the other, concerning a strumpet—two animals which, I am sorry to say it, occasion more duels in private life than the whole system of Zoology besides.

With respect to other professional gentlemen, the same remark may be extended to their case. If a physician fights, it is not to vindicate his skill. If an apothecary takes the field, it is not in defence of his medicines. If a young merchant accepts a challenge, it is not because he is accused of overdrawing his banker, or refusing to pay his bills when due. The dispute will, in nine cases out of ten, be found to hinge on a point which cannot be determined in the chamber of commerce. Why, therefore, duelling should be thought incumbent on those from whom

punctuality rather than courage is expected, I know not. But it is high time to inquire whether the principle may not ultimately be carried into the business of the counting-house? It will then be a matter of some danger to refuse a man credit, and the impertinence of presenting a bill when due must be resented, or practised only by those who are ready to *go out*. This, indeed, may lead to a new system of book-keeping; all debts will be considered as debts of honour, and the day of payment will be kept at the risk of the debtor's life. Fewer books will therefore be necessary, but not fewer clerks, as some must be engaged for the express purpose of vindicating the honour of the house, and occasionally calling out the Commissioners of Customs or Excise, or any other gentlemen who chuse to adhere to the old rude system of doing business.

I have now, sir, endeavoured to advance a little *pro* and *con*, on the obligations to duelling in private life. I have stated, however, rather what is the common opinion than what are my private sentiments. I have no desire that the Proprietors of the Literary Journal should be requested to give up my name, that I may be challenged for any thing here advanced. If men in private life *will* fight, all I expect is, that their disputes shall end in the decision of some question in which they are professionally concerned. If the gentlemen of the cloth will employ other weapons than are mentioned by the Apostle, let it be to settle some doctrinal point. If gentlemen of the bar call one another out, let it be to adjust some question beyond the comprehension of a special jury, and if they "bite the dust," let it be for the good of the profession. As to medical men, perhaps some latitude may be allowed, for to their honour be it spoken, in the choice of their weapons, they have always been found to select those which are most harmless.

I am, Sir,
Your most humble Servant,
QUIETUS.

POLITICS.

1. *Character of the Army of the French Republic.**

THIS army, if we consider the heterogeneous properties which it combines, and the success which has attended its efforts, is one of the most extraordinary phænomena in the history of man, and not less instructive to the student of human nature, than to the general and the statesman.

It will not be forgotten in the page of history, that the army which has driven before it in every situation the best disciplined troops, and the most experienced generals in Europe, was composed of soldiers of the line without order, and of raw and inexperienced volunteers, commanded by men who never before had seen an army, by dealers in needles and thread (Jourdan); monks (Pichegru); physicians (Doppet); barristers (Moreau); common soldiers (Massena); dancers (Muller, Victor); carmen (Brune); quack-doctors (Massot); painters (Cartaux); fencing masters (Augereau); cooks (Championnet), &c. The military system of the monarchy fell along with it, and the officers, who were attached to the monarchy, either retired into obscurity, were driven away, or assassinated. The different departments of the country furnished a number of battalions according to the measure of their population. And in this state the French army stood at the commencement of the war. The different courts of Europe treated with contempt the opposition which such a rabble could present to their designs. A general officer, of high and deserved reputation, boasted at that time that he could march through France with a regiment of Prussian hussars, armed only with staves. And no one recollected that similar predictions had been made and disappointed at the commencement of the revolution in America, when a general officer bravely said in the British House of Commons, *that he would march from one end of America to the other, with* 5000 *British soldiers*; and general Burgoigne, on the same occasion, cried out, *hold up a few broomsticks, and they will instantly run away.*

That mistrust of themselves, and consequent cowardice which the consciousness of their ignorance inspires into undisciplined troops, and which is their principal defect, was changed into confidence by the first retrograde movement of the opposing armies, and by the infinite industry with which the officers laboured to work upon the vanity of their soldiers, and to make them believe that they had a *personal interest* in the successes of the army. The ardour communicated by the great event of the revolution, gave mighty force to the minds of Frenchmen, into whatever direction they might be turned. And before this had time to cool, another impulse, of vast temporary power, was added: Robespierre mounted the revolutionary throne, and erected the dominion of terror. This drove the young men to the army, and kept them there; this stimulated the generals to excessive industry and enterprize, as disgrace and death was the necessary consequence of failure; this furnished resources with the most lavish, and unparalleled prodigality. The expence of success, in men, or in resources, was counted for nothing; success itself was the object to be obtained. It is a solid observation, that the man who is desperate enough to throw away his own life, is master of the life of any other man. And when France sacrificed her means of present and future happiness to her military enterprizes, it was impossible she should not obtain advantages over nations, who wished to contend with more prudence and parsimony.

Neither the French officers nor men were competent to the manœuvring of an army; by consequence, they durst not attempt any movement which was the least complicated. Necessity, and that promptitude of invention upon the spur of the occasion which distinguishes Frenchmen, suggested to them a new species of warfare. Turenne, Condé, and the rest of their school, carried on a war of movements; next followed that of sieges; Frederic of Prussia introduced a particular system of tactics and manœuvres. The French, unqualified for systematic and orderly fighting, sought to reduce the war to important affairs of posts; instead of lines, which could not be preserved without difficulty, they formed close columns;

* See a treatise, entitled, "*Summary Account and Military Character of the different European Powers engaged in the late War;*" from which most of the ideas in the following Paper are borrowed.

they reduced their battles to attacks on certain points, sometimes on one only: and by brigades constantly succeeding each other, and fresh troops supplying the place of those who were driven back, the strong lines of the Austrians were at last broken, as a wall yields to the redoubled efforts of the battering-ram and cannon.

The particular character of the soldiers themselves had no little influence upon the fortune of the army. The French common soldier is distinguished for a certain kind of practical intelligence and sagacity beyond the soldiers of almost any other country. This arises probably from a peculiar alertness of mind possessed by the common people of France, and a facility of being interested by the quickness of their passions in ordinary and passing occurrences, which excites in them a keener attention than is paid by other nations. This property fits remarkably the French for that desultory species of warfare which they pursued. In the midst of a movement that is apparently confused, individual intelligence enables every man to find his place. The manœuvre, instead of being executed in a body, is performed individually; and with the advantage of a superior degree of quickness in the latter case than in the former. The eager curiosity by which a Frenchman is actuated generally furnishes him with all the knowledge within his reach concerning the scene in which he is acting. When a company arrives at a post, or the spot of ground which it is to occupy, instead of lying lazily on the earth, the soldiers examine the post in every point of view, reconnoitre, and form plans of attack or defence. In coincidence with this disposition is an uncommon practice of the commanders, who disclose without reserve their plans to the army. In every circle of officers or soldiers these plans are discussed, and reasoned on. The men by this means become familiarized with what is to be done, and better qualified to carry it into execution. And not unfrequently important hints are derived from observations made in the ranks; many examples occur in history of great success which may be traced to the discoveries or observations of simple soldiers. Even the bodily activity of the French soldiers is of great consequence in that species of warfare which they adopted. And the excessive vanity of the French character gives wonderful facility in exciting emulation among the soldiers, and urging them on either to brave danger, or to endure hardships.

The quickness and skill too with which the French altered their mode of fighting, whenever a change of circumstances made it adviseable, is remarkable. When their removal into rugged, or mountainous countries, made the use of close columns impracticable, they formed that multitude of *eclaireurs*, sharp-shooters, light infantry, and rangers or *chasseurs*, which contributed so much to their success. The vanity, forwardness, activity, and intelligence of the French soldier, adapted him completely for this species of service.

The French soldiers too make up for the discipline of habit and exercise, by that of zeal and attention. They distinguish accurately between what is relative to the service, and what is only personal. Their obedience on duty is exact in the highest degree. The soldier makes it a point of honour to be vigilant, and strictly observant of countersigns. And though in personal matters he be left to himself, may be dirty, sell his cloaths, and commit disorders, the most dreadful punishment waits upon any considerable transgression of military duty. With these dispositions the French troops soon acquired experience. They possessed indeed no system of tactics; but they acquired the faculty of moving with a certain degree of order, and not aiming at regularity and precision, they obtained, on that account, a superior degree of expedition in all their manœuvres.

Another characteristic of the French soldiers, which renders them an instrument of easy management in the hands of their leaders, is their extreme credulity and simplicity, which forms a striking contrast with the acuteness which they discover in discerning advantages, and combining means to gain ends. They may be led on from illusion to illusion, and the experience of having been duped a hundred times, puts them no more on their guard against a new deception. One of the chief concerns of their governors has been to provide a proper succession of fictions to amuse their fancy, and to heat their passions.

One of the most curious effects which has been wrought out of this disposition during the late war, is the willingness to sustain privations, and the power of perseverance. The dreadful miseries of the Revolution assisted powerfully at first in producing this effect. However wretched in the armies, the soldiers knew their fellow citizens were more wretched at home. Though often in want, they were sometimes, by the benefit of plunder, filled even to repletion, and one moment of happiness makes a Frenchman forget years of misery. They became habituated to this alternation, and looked to success and pillage for subsistence and clothing, rather than to a regular and provident administration. Dreadful maladies are the consequence of this irregularity, and immense voids are daily created by the numbers that die; but requisitions and conscriptions quickly fill these up. If the soldiers threaten to mutiny, they are appeased by the payment of part of their arrears. But to victory they chiefly look for the termination or diminution of their misery; and to gain this end, endure fatigue, want, the inconveniencies of heat and cold, disease, and every evil, with a constancy hitherto thought inconsistent with the French character.

With the temper of the troops, the systems of the generals have exactly corresponded. Dispatch is wonderfully adapted to a people volatile, giddy, impatient. The French have gained immense advantages by it. Their armies being composed entirely of young men, and scarcely encumbered at all with baggage, or any regard to regulation, are fitted above all others for expeditious marches; and the generals were perfectly indifferent about the number of men who died of fatigue. In association with this principle, the French leaders make it a point to keep their men in constant movement, and enterprize, with the hope of meeting some favourable occurrence, and to take the widest field possible on all occasions. Besides the vanity of taking a village, of which the name may appear in an official report, they are careful to extend their imposts and requisitions as far as possible.

We have already mentioned the peculiarity, in the French mode of fighting, of concentrating all their force on one or two principal points of attack, which, laying themselves bare on every other part, they often push to a degree of temerity which would have cost them dear, had they been matched with a more active and enterprising enemy. As a security against the effects of this temerity, a considerable part of every French army is formed into a body of reserve, composed of the best soldiers, and commanded by an able general. The light troops begin the battle. If they succeed in disconcerting the enemy, they push towards him with wonderful vivacity and boldness. The courage of each individual is distinctly seen, and both personal and national vanity urge him on to the boldest actions. The French have a happy faculty of reading the countenances of the enemy; and seize with precision and celerity, the moment of pushing him when he begins to give way. If their charge is repulsed, and they are driven back, they are received by a fresh body of their friends, who sustain the shock of the enemy or renew the attack. The infantry being almost always in close order, fears not the efforts of the cavalry. And the French pay very little attention to the disposal of the enemies' battalion guns; for if they are charged only with ball their effort is of little consequence; and if they are near enough to be charged with grape shot, the cannoneers cannot stand the effect of the musquetry. The precipitancy with which the French retire, without observing order, would be fatal, had they not the reserve to cover them, or did the enemy, dropping a little of his regularity and system, follow with a little more celerity. On more than one occasion, as at Marengo, the reserve has snatched the victory out of the hands of the enemy. And their intelligence, and desire for the combat, enable the broken troops to form again, sooner than those of almost any other country.

Another peculiarity of the French army is its artillery. The old artillery preserves nothing of what it formerly was but the name. The officers are ignorant and inexpert. The French give no field pieces to the battalions, which not being subject to the heavy movements of such machines, are so much the lighter. They place their pieces according to the urgency of the moment, or the nature of the ground; and the want of sufficient numbers is compensated, by what has been of immense advantage to them, the flying artillery. This is composed of the flower of the soldiers, who expose themselves without measure. According to the avowal of their best generals, this has contributed greatly to their success. It is superior to the common artillery by the choice of the men and its rapidity of movement, and it saves from the burthen of heavy artillery which encumbers armies.

But the grand cause of the success of the French, is the enormity of the price at which it has been bought. When we consider the waste of population and of property made for the maintenance of the French armies in old France, and in the countries which she has conquered, we shall perhaps be astonished, that the effects produced by her have not been greater than they are. The youth of France, the spring of the nation, has been destroyed! her commerce and industry have been well nigh annihilated. The accumulated produce of one of the fairest portions of the earth has been dissipated. And France will long have occasion to regret the sacrifices she has made for her recent conquests.

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2. *On Clerical Non-Residence.*

Mr. Editor,

Having requested room in your Journal for some observations on Clerical Non-Residence and the Bill before the Commons concerning it, I now take the liberty to send them; premising only that they shall be as brief as the nature of the subject will admit.

It has, I doubt not, appeared extraordinary to many, after so long a time had elapsed since the subject, from repeated prosecutions, had become a general topic of discussion, that the clergy should not, as a body, have assembled to deliberate upon it; and, especially, as it has been repeatedly brought before Parliament, and is still the object of legislative attention.

It is conceived that they have been much blameable for their supineness; since, by means of it, they have in many instances betrayed the interest of their order, and rendered it obnoxious to unmerited censure. Had they interfered as they ought, an application to Parliament would have instituted its proceedings on the proper grounds, and suggested the proper remedy for the evils alleged.

That the statute of Henry VIII. which gave rise to the late infamous prosecutions—and as applied by the established rule of decision, has added, contrary to its direct meaning, if words have a meaning—a penalty by ten times more severe than the statute intended,* requires to be altered, few persons have ventured to affirm; but, at the same time, other provisions have been suggested for enforcing residence, without a due consideration of the question.—The point I conceived in the first instance, to be settled, free from all popular prejudice, is: Whether, in the present situation of society, non-residence be, in general, an evil?—and 2dly, if it be one, to what extent the evil exists?

In respect to parochial duty, it will be granted that, as in the eye of the law every clergyman authorized to perform it, is equal to every other, without reserve or distinction; if the duty be duly performed, it matters not, as a general and legal consideration, whether A. or B. perform it. In this view then, as a variety of circumstances appertaining to an incumbent may make it convenient and perhaps necessary, (after his having provided such a substitute as the Ordinary hath approved) to change his abode; non-residence, in this case, is beneficial to himself, and not injurious to

* The words of the statute are:—"In case he shall not keep residence, but absent himself wilfully by the space of one month together, or by the space of two months to be at several times, in any one year—he shall forfeit for every such default 10l." That is, for every such default as a *wilful absence* for *one month together in* ANY ONE YEAR, or *two months at separate times in* ANY ONE YEAR; and not for *eleven months* as the law has been construed, in *any one* year. This ground of argument was taken up by Mr. Henley and supported by him, as I have heard from several gentlemen at the bar, when he defended his own cause at the Suffolk assizes, in a manner that was held to be unanswerable.—Indeed it is understood, that many circumstances occurred upon that trial, which if more generally known, would have interested the Public, or, at least, the whole of the clerical order.

any. So much for the question in general. If, however, we descend to particulars, the conditions of each case would demand a separate provision. Where the income of livings yields competent support, there it is for the pecuniary interests of incumbents to reside; for no man will allege, that the profits would be equal to an incumbent absent and residing. Here then a reason is suggested on the face of the case, which ought to have its weight in behalf of the parson *not residing*.—Where the income is incompetent for the parson's support, what crime, in the name of common sense and humanity, can it be, if, for the laudable purpose of bringing up a family, he withdraw to a place, where, by establishing a school, or by other honourable exertions, he can procure what the scanty income of his parish is insufficient to supply? The clerical duty of that parish is duly performed, as the episcopal and archidiaconal visitations take care to see to, himself and his household are decently maintained, and others are benefited by his instructions or good offices.—Should it be said, that the statute enjoins residence for the sake of hospitality—in most cases at the present day this language would be insult. The hospitality then meant has been altogether superseded; its objects having been the reception and entertainment of travelling friars, episcopal officers, and the support of the poor. The first of the three, the Reformation got rid of; commutation hath compensated the second; and the poor laws have provided for the last. As to gratuitous benevolence, that must arise from the dispositions of individuals, and will be either withholden or dispensed without attention to place. These instances applying directly to the question, may serve as a specimen of others. But distinct from this view of the subject, by enforcing residence, as things now are, infinite mischiefs must ensue. By a late Act of Parliament, introduced on a ground which reflects no honour upon it—namely, to preclude from the House a member who was never of less consequence than while one—it has been determined that the clerical character is INDELIBLE. Now, by enforcing residence it inevitable follows, many of that character will be deprived of employment. If so, whence are discarded curates to derive their subsistence? and how are their families to live? From turning to another profession they are by law restricted, they must therefore starve by law in their own. Nor is *enforced residence*, prospectively, more favourable to the church. On the faith of things as they have stood for so many generations, the two Universities are filled with candidates for the sacred functions, yet after enormous expences incurred for education, how many are there of one, two, and three years standing, against whom the church door is barred, and they can gain no admission! It is a pretty thing for orators to display their wisdom, and I have often admired a speaker in the House of Commons, who, on the nonce, will promulgate his decisions upon questions of this sort, and urge them with a confidence, as who should say, "I am Sir Oracle," when, if examined, they are lighter than air itself, or thicker than "Tewksbury mustard," but without its sting.

Allow however, that non-residence is an evil, and of as much magnitude as many pretend; ought not the House of Commons, before it go on with the bill, to be informed how far it extends? I believe no document to this effect hath hitherto been submitted to the House, though one month at the most would have furnished, by application to the registrars of each diocese, a correct list of every instance, with the reasons whence it arose. Surely, the bill will proceed no further till this information is obtained, and, when obtained, it will sufficiently shew that the *unjustifiable* instances will be comparatively few. Should this be found fact, what will the legislature be doing in proceeding with a bill, which will, in cases without number, operate on many among the most deserving of their order, like the iron collar stuck with spikes, on the necks of the martyrs.

I would here guard against being misunderstood. A clergyman will never discharge parochial duties the better for being compelled by law to perform them: One may lead a horse to water, but twenty cannot make him drink. A curate will in most cases be likely to discharge the duty as well, at least, as his principal. He has as many obligations of conscience, and others in addition peculiar to himself. The principal, for his own sake, will have an eye also to him; besides the Archdeacon and the Bishop.

As to those who are called Buck-Parsons, being chiefly persons who have taken orders to hold family livings, or because they have connections to push them in the church—such as are seen in fox-chases, lounging at Tattersal's, taking their daily saunter in Bond-street, or on Saturday nights at the opera; if it will be beneficial to their parishioners that they officiate in person, compel them in the name of Heaven to reside; yet surely their curates would fill their place better. But if otherwise, these are comparatively few; and it behoves all who are concerned with the bill in question, to be aware of the grounds on which they proceed. It has tendencies, which I admit to be undesigned, but which will practically contribute to overthrow the church; and I conjure those by whom it is patronised, to proceed in it with caution. I am, Sir, yours, &c.

L. Y.

You will perhaps, if I shall not be too intrusive, hear from me again.

NOTICES.

Prussia.—Count do Schoenberg, has lately emancipated the slaves* on his estates to the number of 300. He has declared that the motives which determined him was the persuasion that agriculture would reap from it great advantage, and the sincere pleasure he experienced in conforming himself to those sentiments of paternal affection of which the king gives so many proofs to his subjects.

Mr. John Augustus von Beyer, royal Prussian privy-counsellor of Finance, and president of the Supreme Board of Revision, having lately completed the fiftieth year of his public service, his numerous friends resolved to celebrate the joyful event, and gave a splendid entertainment on the occasion. As the worthy veteran entered the festive hall, Baron Hardenberg, minister of state, delivered to him the following letter from his Prussian Majesty:—

"Worthy, faithful, and beloved Counsellor—From the "severe loss, which the state has lately sustained through "the premature decease of several of its distinguished "servants, I feel the more happy in witnessing the vigor

* Adscripti Glebæ.

" and activity of the few, who, in full possession of health " and spirit, attain a maturer age. You hold a distinguished " place among them, since this day you complete half a " century of faithful, important, and beneficial services " rendered to the state with an uncommon share of know- " ledge and talents, and with unremitting, unwearied zeal; " services, whereby you have justified the confidence placed " in you under three reigns in the different stations you have " filled, and raised new expectations, founded on the ex- " perience you have collected during so long a series of " years. I cannot, therefore, deny myself the satisfaction " of expressing to you the lively share I take in the jubilee " which your colleagues intend to celebrate on that occasion. " Having served the state with disinterestedness, you have " probably not been able to provide for your wife according " to your wish. It is just that the state should relieve you " from that care. I, therefore, readily assure you, that, " while I wish, as I sincerely do, I may long continue to " enjoy the benefit of your services, should Providence " dispose of you, I will take care of your widow by settling " her a pension, proportionate to your merits, as your " gracious King. FREDERIC WILLIAM."

NOTICE TO CORRESPONDENTS.

*** *We request our Correspondent* Σ *to favour us with the* fac-simile *noticed in page* 573.

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On Monday, the 9th of May, will be Published, elegantly printed in Demy Quarto, by Whittingham, *containing Three highly finished Engravings, a Plate with Outlines, and a Wood Cut by Anderson, No. I. Price 5s. Of*

A SELECTION of ANTIQUE GEMS, to be engraved in the Manner of Chalk, from Drawings by R. DAGLEY.

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AN OBSTACLE TO THE AMBITION OF FRANCE, or THOUGHTS on the Expediency of improving the Political Condition of his Majesty's IRISH ROMAN CATHOLIC SUBJECTS:

By THOMAS NEWENHAM, Esq.

One of the Representatives of the Borough of Clonmell, in the last Irish Parliament.

London: Printed by and for C. and R. Baldwin, of New Bridge-street, Blackfriars.

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ESSAYS on the POPULATION of IRELAND, and on the Characters of the Irish.

LONDON COFFEE HOUSE, March 25, 1803.

PRSERVATION FROM SHIPWRECK.

ROYAL HUMANE SOCIETY.

The Rev. Dr. GREGORY in the Chair.

THE COMMITTEE appointed by the ROYAL HUMANE SOCIETY, for deciding on the various Essays, Models, &c. submitted to their consideration, for the *Prevention of Shipwreck*, and *saving the Lives of Shipwrecked Mariners*, take the liberty of submitting to the Public the following Resolutions:

ON AN IMPARTIAL REVIEW of the several ESSAYS and MODELS exhibited on this occasion, the Committe are sorry to observe that the GREAT OBJECT of the Premiums offered by the Society YET REMAIN UNACCOMPLISHED. They therefore have not awarded the FIRST PRIZE to any Candidate.

The SECOND PRIZE, a Silver Medal, they have adjudged to M. GEORGEST, Chief Engineer of Bridges, &c. in the Department of St. Aude. in France.

IN LIEU OF THE SECOND PECUNIARY PREMIUM, they have voted the same Reward, viz. a SILVER MEDAL, to Mr. SPENCER, of Bread Street, for his Invention of the MARINE SPENCER,

The THIRD PECUNIARY PREMIUM, to Mr. W. PRIEST, Master of the Band to the York Hussars, for his Recommendation of the use of Buoys attached to the Sterns of Vessels.

The THANKS OF THIS COMMITTEE are voted to Lord HENNIKER and Captain KEITH, for their obliging Communications, which will be more particularly noticed in the Reports of this Society; and they are requested to continue their attention to this interesting subject.

The THANKS OF THIS COMMITTEE, with the same recommendation, are also voted to the following INGENIOUS FOREIGNERS, viz. A. LOUSGES, M. WACKEN, M. COUROISSER, VERDIER NANTZ, M. CH. GEORGEST, of Arcassonne.

READ A LETTER FROM MONS. TURPIN, *Forwarded by his* EXCELLENCY GENERAL ANDREOSSY *to the* EARL OF STAMFORD, PRESIDENT, respecting an Invention of his, "*A Vessel that will not sink:*" but as it was accompanied neither with a Plan nor Model, it did not properly come under the notice of the Committee on this occasion.

HONORARY and PECUNIARY PREMIUMS or ESSAYS, MODELS, &c. RELATIVE TO THE FOLLOWING QUESTIONS:

I. *What are the best means of preventing Shipwreck?*

II. *The most probable means of keeping Vessels afloat, if they spring a Leak, or are in extreme Danger.*

III. *The most certain Methods of conveying Assistance from shore to Vessels in Distress, and when Boats dare not venture to their Aid.*

HONORARY PREMIUMS, &c.

To be kept open and to be adjudged in MARCH, 1806.

For the First in point of Merit,—AN HONORARY GOLD MEDAL,

The Second,—AN HONORARY SILVER MEDAL.

3d,—TEN GUINEAS. *4th,*—FIVE GUINEAS. *5th,*—THREE GUINEAS.

REGULATIONS.

I. The MODELS, DRAWINGS, and ESSAYS, to be transmitted to Dr. HAWES; *with some Device on the Outside*, and, *within*, the Name of the Author.

II. The DETERMINATION of their Merits will be vested in an appointed Committee, &c. and the PRIZES adjudged as above.

III. The *Successful Essays* will be published by the Society; *the others returned* to their respective Authors.

Signed by order JOHN BEAUMONT, REGISTER.

This Day is Published, Price 2*s.* 6*d.*

THE BRITISH CRITIC. For April, 1803. Containing a Review of various Articles in different branches of Literature; among which are, Coxe's Memoirs of Lord Walpole; Chatterton's Works, by Southey; Jones's Analysis of the Epistle of the Romans; Marshall on the Law of Insurance; Sandford's Sermons for young Persons; Infidel Father, by Mrs. West; Gisborne's Sermons; Mr. Pegge's Anecdotes of the English Language; Grandpré's Voyage in the Indian Ocean and to Bengal; Foreign Literature, &c. &c.

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Of whom may be had

The British Critic, from the commencement in May, 1793, to December, 1802, in Twenty Volumes, Price, in Boards, 10*l.* 11*s.* To each Volume is prefixed a Preface, containing a retrospective View of British Literature, during the Period which the Volume contains. A Volume of this Work is completed at the End of of every Six Months, Price, in Boards, 15*s.* 6*d.*

A general Index to the whole Work is preparing for Publication.

NUMBER 19.] THURSDAY, MAY 12, 1803.

PHYSICS.

1. *On Galvanism.*

IN a former Number of this Journal we gave a sketch of the principal facts which have been discovered relative to Galvanism. And before we proceed to enumerate those which have been more lately ascertained, we mean to attempt to connect the most important fundamental propositions relative to this science, by means of an hypothesis. This will be attended with considerable advantages. It will give the galvanic facts a union which they still want; it will enable us to foresee the result of many experiments before they be made; and it must serve also to direct our views in the subsequent prosecution of the subject. Hypotheses may be considered as stepping-stones, by means of which we are enabled to wade through the depths of error, and arrive in safety at the regions of truth; they are the scaffolding which enables us to ascend to the proper height for viewing the country which we mean to examine. But these advantages result from them only when they are considered as *hypotheses*, as fictions contrived to aid the memory and assist the imagination. When they are palmed upon mankind as the dictates of truth itself, then they change their nature, then they become stumbling blocks, and rocks of offence, which prevent the progress of knowledge, intercept the light of truth, and leave us to wander in the "darkness visible" of error and ignorance.

The following hypothesis is not new; it was fully suggested by Vauquelin, Fourcroy, and Thenard, partly by Dr. Bostock, and partly by M. Volta; though we have been obliged to modify all the opinions considerably to make them correspond with the phænomena.

Hypothetical Explanation of Galvanism.

1. There is a substance called the *electric fluid*, which exists in all bodies; but its presence is not perceptible except when a body contains more or less than the usual quantity of this fluid. The body is then said to be electrified *plus* or *minus*.

2. This fluid is capable of penetrating and passing through certain bodies without obstruction; but through others it cannot pass without difficulty. The last set of bodies are called *electrics*, the first, *conductors*.

3. Conductors are of two kinds: the first set of conductors are called *perfect*, because the fluid passes through them with the least obstruction, and of course with the greatest rapidity and ease. The second set are called *imperfect* conductors, because they conduct the fluid with more difficulty.

4. The perfect conductors are all solid bodies, and capable of combining with oxygen. When combined with that body they lose their properties as *perfect conductors*. The only perfect conductors at present known are the metals and charcoal in its various states.

5. The imperfect conductors, on the other hand, contain oxygen, and when deprived of it, they lose their properties as imperfect conductors. They are all liquid bodies, and usually contain water as a component part.

6. There exists an affinity between the perfect conductors and the electric fluid. Of course the fluid does not leave a perfect conductor unless when it is attracted by a body for which it has a stronger affinity, or expelled by the combination of some body with the conductor, for which that conductor has a stronger affinity than it has for the electric fluid.

7. The affinity of each of the perfect conductors for the electric fluid is different. Hence if two perfect conductors be brought into contact, the proportion of electric matter in each changes. The conductor which has the strongest affinity for the fluid becomes electrified plus, and the conductor which has the smallest affinity becomes electrified minus. Thus if a plate of zinc and a plate of copper, each in its natural state of electricity, be brought into contact, the zinc becomes plus, and the copper minus. If iron and silver be brought into contact, the iron becomes plus, and the silver minus. These two states will be permanent, unless the state of the electricity be altered by other circumstances.

8. The instant that a perfect conductor, electrified plus, combines with oxygen, it parts with the excess of electric fluid which it contained, and the discharge is made towards that side of the conductor which has combined with oxygen.

9. Imperfect conductors have a smaller affinity for the electric fluid than the perfect conductors. Hence if a perfect and imperfect conductor be brought into contact, the perfect conductor becomes plus, and the imperfect minus, and this state will be permanent provided the imperfect conductor be not capable of communicating oxygen to the perfect.

10. There is an affinity between the electric fluid and hydrogen. Therefore if hydrogen be present when the electric fluid is separated from a perfect conductor, the fluid always combines with it.

11. The perfect and imperfect conductors differ essentially from each other in the way in which they conduct the electric fluid. The perfect conductors allow the simple fluid to pass through them; but the imperfect conductors are in fact non-conductors of the simple fluid; before it can pass through them it must be combined with hydrogen. This combination of electricity and hydrogen is capable of passing invisibly through liquid conductors, just as electricity, heat and light is capable of passing.

12. Suppose a plate of copper and another of zinc to be brought into contact, the zinc will become immediately electrified plus, and the copper minus. Suppose now the surface of the zinc farthest from the copper to be brought into contact with a liquid

conductor capable of oxidizing its surface; as water impregnated with common air, or with an acid. The instant that the oxygen of the imperfect conductor is deposited on the zinc, its surplus of electricity leaves it and passes on towards the imperfect conductor. But the oxydation of the zinc evolves hydrogen, for it is produced by the decomposition of water; the electricity combines with the hydrogen thus evolved, and of course is enabled to pass through the imperfect conductor. Suppose now the imperfect conductor to be bounded at its other side by a perfect conductor, which it either cannot oxidize, or only very imperfectly, (a plate of copper for instance,) the consequence will be, that the electricity will leave the imperfect conductor and enter the perfect. But it cannot pass through a perfect conductor while combined with hydrogen. Therefore it leaves the hydrogen behind it. Of course the instant the electric fluid passes from the imperfect to the perfect conductor, a portion of hydrogen gas is evolved at the surface of the perfect conductor, or it deoxydizes that surface, if it be imperfectly oxydized by the action of the imperfect conductor. If the plate of copper be followed by a plate of zinc, the fluid will not remain in the copper, but pass on to the zinc, in consequence of the greater affinity of that metal. If the zinc be followed by another layer of the imperfect conductor, that layer will oxydize the surface of the zinc, the electricity will be disengaged, combine with hydrogen, and pass through the imperfect conductor as before. And how often soever these three sets of bodies follow each other, provided it be in the same order, we cannot but see that the same phænomena must be renewed.

Suppose now a pile formed in this manner, and consisting of as many sets of plates as we please. It must be obvious that the uppermost plate, which will be zinc, is electrified plus, and the lowermost plate, which is copper, electrified minus. Therefore if we unite the highest and lowest plates of the pile by means of any conductor or set of conductors whatever; it follows from the known laws of electricity, that the redundancy at the top of the pile will immediately make its way to the bottom. The consequence will be a current of electricity passing through the pile, which must continue till the complete oxydation of the surfaces of the zinc, next the imperfect conductors, puts an end to the action, by stopping the double decompositions which are necessary for the action of the pile.

As the quantity of electricity, or rather the number of repeated charges which pass through the pile, must be proportional to the number of plates, we see the reason why the intensity of the pile must increase with the number of plates. The absolute quantity of electricity discharged from any single pair of plates must be proportional to the surface of these plates. Hence the reason why the quantity of electricity discharged from a pile in a given time depends upon the surface of the plates.

The effect of electricity on animal bodies depends upon its intensity, or rather the number of discharges, with an interval after each, made to pass through the body in a given time: its effect on metals, &c. depends on the absolute quantity which passes through the metal in a given time. When a galvanic pile is discharged, the small charge contained in every pair of plates passes through the discharger. But these separate charges cannot be supposed to pass instantaneously, there will be an interval between each, greatly too small indeed to be perceived by us, and therefore the discharge of the pile appears instantaneous. The number of small discharges therefore which pass *instantaneously* (in appearance) when a pile is discharged, is proportional to the number of plates; the intensity of each little discharge being proportional to the place which the pair of plates occupies in the pile, as Volta has shown. Hence the reason why the number of plates increases the shock much more rapidly than it increases the effect of the pile on metals.

On the other hand, the increase of the surface of the plates increases the effect on metals, because it increases the quantity discharged at once from the uppermost pair, which seems to produce the whole effect upon these bodies.

13. This hypothesis explains so obviously the action of the pile, whether that of Volta or Davy; the necessity of keeping the contiguous surfaces of the two metals dry; or when only one metal is present, the necessity of confining the oxydation to one of its surfaces; and in short every phenomenon relating to the pile itself, that it is quite unnecessary to enter into any farther illustrations. Let us rather proceed to explain the chemical phænomena which result from the action of the pile.

14. Suppose a gold wire connected with the uppermost plate to terminate in a glass of water, and another gold wire from the same water to terminate in the undermost plate of the pile: Here the circle is completed by a perfect conductor, namely, the gold wire. Of course the current of electricity must pass through that wire from the summit to the base of the pile. It would pass without interruption were not the wire broken in the middle and the interval supplied with water. When the electric fluid comes to the extremity of the wire it is obliged to traverse the water; but this is impossible without previously combining with hydrogen. The hydrogen can only be obtained at the expence of the water. Accordingly the water is decomposed at the point of the wire; the oxygen gas disengaged, and the hydrogen, combined with the electricity, passes through the water till it comes to the point of the other wire. This wire having a stronger affinity for electricity than the water has, the electric fluid enters it, and passes on to the pile. But it cannot enter the wire till it has separated from the hydrogen. Accordingly the hydrogen gas is disengaged at the extremity of the second wire.

If the liquid into which the wires are plunged be ammonia, the hydrogen is obtained at the expence of that substance. Of course azotic gas is disengaged at the extremity of the first wire, and hydrogen gas at the extremity of the second.

Suppose the liquid to be water containing a little common air and of course azote. Oxygen gas has the property of combining with azote, provided it be

within its reach at the moment of its disengagement, and the resulting compound is nitric acid: in like manner hydrogen gas has the property of combining at the moment of its disengagement with azote, and the resulting compound is ammonia. Hence the reason that in common water a little nitric acid is formed at the point of the positive wire, and a little ammonia at the point of the negative.

Suppose the liquids to contain a metallic salt whose base is the oxide, of silver, mercury, &c.: hydrogen gas has the property of reducing metals provided it comes into contact with their oxides at the moment of its disengagement. Hence the reason that in these cases the metal is deposited on the negative wire.

15. Suppose copper or iron wires to be used to complete the circle instead of gold wires: oxygen has the property of uniting with these metals, provided it comes into contact with them at the moment of its disengagement. Hence the reason that no oxygen in that case separates from the positive wire, but that it deposits abundance of oxygen.

16. Suppose charcoal or plumbago to be employed to complete the circle instead of wire, and that the chain of it is in like manner interrupted by an imperfect conductor, as water. In that case, carbonic acid gas separates from the positive conductor, because oxygen has the property of combining with carbon, provided that body be present at the moment of its disengagement. For a similar reason carbureted hydrogen is separated from the negative conductor.

Such is a short statement of the hypothesis which serves to connect together the galvanic phænomena. A larger illustration would be unnecessary, as every person will be enabled without difficulty, from the remarks which we have made, to explain all the known phænomena of galvanism.

We shall, in a subsequent Number of the Literary Journal, take a short view of the lately discovered facts in galvanism in different parts of Europe. We shall arrange them under two heads: 1. Those which result from our hypothesis, and which might have been deduced from it *a priori*. 2. Those which do not result from it, or which apparently contradict it. These last facts we shall compare with the hypothesis, in order to ascertain what extension or modification of it they may render necessary.

It is only necessary to add at present, that several of the propositions on which our theory rests have been demonstrated true, and that none of them are contradicted by any fact at present known. This precaution is necessary in forming hypotheses. They cannot and ought not to be admitted as hypotheses when they are irreconcileable to demonstrated facts.

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2. *Some account of* Francis Egerton, *Duke of Bridgewater.*

We are induced to insert the following very imperfect account of this illustrious man, rather to excite others to communicate a full biographical account of him, than from any hopes that we ourselves shall be able to gratify the curiosity of the public.

He was born May 21, 1736, and succeeded his brother John, in February 1748. To him we may consider the country as indebted for the first introduction of navigable canals into this kingdom; an improvement which has been attended with incalculable benefit, a benefit becoming more and more conspicuous every day, and now felt and acknowledged by every person of any discernment in Britain. That was not the case when the Duke of Bridgewater first began to put his plans in execution. He had an estate at Worsley in Lancashire, abounding in coal mines, and yet of little value, because Manchester lay at too great a distance for land carriage. He thought of a canal, and consulted the celebrated Brindley, at that time little known, about the possibility of executing it. This bold and sagacious artist pronounced it practicable, and offered to undertake it. The Duke applied to parliament, but his plan met with a powerful opposition, so little at that time was the utility of canals understood. Fortunately the friends of the Duke prevailed, and the bill passed in 1759. The canal was immediately begun and carried on by the Duke and Mr. Brindley with the most persevering industry, in spite of the sneers of artists and pretended connoisseurs, who pronounced the undertaking a castle in the air, and threatened ruin and ridicule as the unavoidable consequence. Indeed the formidable nature of the obstacles to be overcome were sufficient to stagger any man of less sagacity than Brindley.

The canal began at Worsley mill. A large bason was first scooped out capable of holding all the boats, and filled with a great body of water which served as a reservoir. The canal then enters a hill by a subterraneous passage, large enough for flat bottomed boats, which are towed by means of hand-rails for almost a mile. The passage divides in two to convey the boats to the different coal works. Air funnels are cut in several places to the top of the hill.

In some places the canal is carried over public roads by means of arches, and in some cases the road is artificially lowered, where the ground was not high enough for the arch. At Barton bridge, the canal is carried in an aqueduct over a valley, and over the river Irwell, at the height of 40 feet above it. On each side of the Mersey it is carried through meadows. Almost the whole way the level is preserved. The whole was completed in about 5 years, and consisted of a length of canal not less than 29 miles. The expence was enormous. The forges and workshops were all constructed on barges which floated on the canal, and followed the work from place to place. In some places it is constructed on piles. At Cambroke is a circular weir to keep the water of the canal at its proper height; the surplus flows over the nave of a circle in the middle of the weir, and by a subterraneous tunnel is conveyed to the usual channels.

Besides this canal, the Duke was a liberal promoter of the Grand Trunk canal, and was always ready to assist every well digested plan of that kind with all his interest. The greater part of his time was taken up with his commercial speculations and improvements. Sometimes, however, he attended Parliament, and in politics he usually followed his brother-in-law, the Marquis of Stafford.

He was never married. Indeed, his indifference

for the fair sex almost went the length of aversion; and this peculiar turn of mind occasioned some singular regulations in his domestic economy.

His arduous undertakings were uniformly crowned with the most complete success, and his perseverance was rewarded by an immense fortune, which at his death he divided among his relations. It is Colonel John William Egerton who succeeds him in the title of Earl of Bridgewater. He left estates worth £50,000 per annum, besides much money in the funds. His canal property in Lancashire, which produces an income of nearly £80,000 per annum, he left to Earl Gower. But it is not our object to enumerate his legacies, excepting as a proof of the wealth which he had accumulated. He died in March 1803.

NOTICES.

Dr. Richard Pearson has reprinted his Observations on the Influenza, or Catarrhal Fever;—this new edition is enriched by a number of valuable Communications from medical gentlemen.

The Academy of the Sciences and Arts at Dijon has proposed the following prize-question.—"Catarrhal fevers become daily more frequent than they formerly were, inflammatory fevers occur extremely seldom, and bilious fevers are less frequent. What are the causes that have produced this revolution in several climates and temperatures of the atmosphere?—The prize of 500 francs will be adjudged in the Public Sitting of the Academy in Fructidor, in the year 12; the memoirs are to be sent to Doctor *Vallot*, Secretary of the Academy.

Dr. Friese at Breslaw, has lately published a German translation of Dr. Willan's Treatise on Cutaneous Diseases, augmented with a great variety of notes, chiefly extracted from German Works, with which the learned Author was not acquainted.

J. P. Redouté, painter to the National Museum of France in the department of Natural History, has published the first and second number of his valuable work, intituled, "*Les Liliacées.*" The plants of this beautiful family described and figured in those two numbers, are: Dianella ensifolia (Dracaena ensifolia Linn; in the West Indies, La Reine des bois; whence originates the denomination Diana, which Lamarck changed to Dianella;) Lachenalia tricolor Ait, (from the Cape;) Hemerocallis japonica, Thunb; Amaryllis formosissima, Linn. (Croix de St. Jacques, from Mexico, imported into Europe in 1593.) Figridia, (Juss. Ferraria Linn.) Pavonia, (from the Cape;) Agapanthus umbellatus. L'Herit. (tuberosus Linn. otherwise Crinum Africanum.) Lilium Pomponium, Linn. (from the Pyrenees and Siberia.) Pancratium maritimum, Linn. Amaryllis Reginæ, (from the Cape.) Amaryllis villata, Ait, (from the East Indies.) Gladiolus merianus, Thunb. (Antholyza, Linn. from the Cape.) Antholyza Cunonia, Linn. (from the Cape and Persia.)

Of this splendid work it may be truly said, that in correctness of design, brilliancy of colouring, and neatness of execution, it is rivalled by few, and excelled by none.

A letter of the 3d March last, written by a Physician of the Cisalpine Republic, contains the following intelligence: Surgeon *Birago* at Milan, having been applied to by a patient whose hands were affected with sores incident to persons who attend horses diseased with the grease, he immediately acquainted with it the committee of vaccine inoculation, which caused a child to be inoculated with matter taken from the sores of the above patient. The result of the inoculation was a very fine cow-pox, a result, which confirms the more Dr. Jenner's opinion of the origin of the cow-pox, as the patient in question had no intercourse whatever with cows, but attended a horse, afflicted with the grease.

Dr. Buttaz, author of a valuable treatise on phosphorus, has been appointed by his Russian Majesty to make a tour through Russia, for the purpose of inoculating children for the cow-pox. His travelling expence is defrayed by government, and he has a yearly salary of 1200 rubles. After a stay of three weeks at Moscow, where he inoculated 800 children with complete success, he set out from thence to traverse South Russia, and all other parts of that vast empire.

From a variety of experiments, made by Professor *Schaub* in Cassel, and repeated by Doctor *Piepenbring* at Cartshusen, it seems evident, that the pretended discovery of Citizens *Hachot* and *Desormes* of the National Institute of France, "That many solid and dry bodies, for instance starch, in Volta's pile, can supply the place of moist substances, and that starch may almost be considered as the invariable source of the electric fluid," is without foundation.

The *Società Italiana delle Scienze*, at Modena, has offered a gold medal for the best memoir on atmospheric air, explaining its true component parts by analytical and synthetical experiments. The memoirs must be composed in the Italian tongue, and sent before the 19th of July, 1803, to Professor *Pompilio Pazzetti*, Secretary of the Society.

We learn from Bologna, that the University in that city is now completely organized, in pursuance of a resolution issued by Bonaparte, as President of the Italian Republic; on the 7th January last. Among the *Literati*, who have obtained Professors' chairs, we find *Sacchetti*, who is appointed professor of elementary geometry, and algebra, *Guglielmini*, of the higher arithmetics; *Ciccolini*, of astronomy; *John Aldini*, of experimental physics; *Brunelli*, of natural history; *Frugazza*, of anatomy and surgery; *Bondioli*, of materia medica; *Moreschi*, of comparative physiology, and *Salvigni*, of chemistry.

A very important and valuable work has lately been published at Amsterdam, under the title "*Verhandeling over volmaakte Maaten en Gewigten*, &c."—A Treatise on Perfect Measures and Weights, by J. H. van Swinden, 2 vols. 8vo. In one of our succeeding numbers we shall give a full account of this instructive and interesting publication.

Dr. Riffelsen, teacher of mechanics at the academy of the Rev. Mr. Christiani, in Copenhagen, has invented a new musical instrument, the tone of which resembles, yet surpasses that of the harmonica. The sounds are produced by the friction of brass pegs touching slightly a cylinder of steel; the inventor has given it the name of *Melodica*.

On the 17th of March last, died at Brunswick, Prince *Dimitri Gallizin*, late Russian ambassador at the Hague, President of the Mineralogical Society at Jena, and author of "*Esprit des Economistes*," and several Mineralogical Works.

Michael Horváth, Provost of Graba, has published a new edition, corrected and enlarged, of his "*Statistica Regni Hungariæ et partium eidem annexarum, &c.*" from which we learn, that tin-mines have been lately discovered in Hungary, which, in the author's opinion, were worked in ancient times, but filled up in the reign of Bela IV. when Hungary was invaded and laid waste by a ferocious horde of barbarians.

LITERATURE.

1. ROYAL ACADEMY.—*Remarks on the Exhibition, continued.*

PORTRAITS.—Without meaning any satire on our own country, which produces as much beauty as any in Europe; it unfortunately happens, that Portrait-painting, under the patronage of riches only, often exhibits forms of men, having scarcely any thing human; the faces bloated, unmeaning excrescences, and the heads evidently the capacious reservoirs of swampy brains.

We congratulate the public, however, that the Epidemic Influence of Venetian colouring (like the *Influenza*) is considerably abated.

Portrait-painters (on the same principle with sign-painters) are generally devoted to the charms of colouring. It is not, who can excel in corrrectness, energy, and elegance of outline: it is not, who can render the tone and truth of tints, masses, and the effect of Chiaroscuro, instruments of sublimity or of pathos: it is not, who can excel his competitors in invention, composition, expression, and the power of telling a story; but who can entrance the rich, though vulgar eye, with the charms of glazing, and the mysteries of the reflections of lights.

Spirit of the immortal Reynolds! it is on this subject the friends of the arts should invoke thee. In Portraits thy conceptions were ever original and graceful, and thy taste always refined.

MR. LAWRENCE is the most successful of the imitators of Sir Joshua. But Mr. Lawrence should invent, not always imitate any style; or if he imitate, he should not copy. It is the part of genius, to proceed from what he has seen to what he did not see. It was on such principles *Apelles* painted his VENUS, and it was on such principles Reynolds drew his Portraits.

Lawrence's portraits of *Lord Thurlow*, No. 21; of *Lady C. Hamilton*, 64; of *Mr. Windham*, 105; of *Miss Lamb*, 127; and of *Lady C. Campbell*, 182; have considerable merit, in this style. When the artist deviates from it, it is to give his figures a dramatic air, suitable to the gaudiness of the colouring.

MR. HOPPNER, is often the caricature of Sir Joshua, from the affectation of a singular manner.

Mr. Hoppner has frequent opportunities of painting real and elegant beauties; but he seems a stranger to what connoisseurs call *grace*; that artful but apparently artless balance of union and repose, which the actual forms and characters of English Beauties generally require.

Psyche's return from the infernal shades, with the Box of Beauty; a portrait of Miss Grimstone, No. 22, is a striking example of this defect,—a subject treated without taste, which required its utmost refinement.

The portraits of *Lady Grenville*, 76; of the *Bishop of Durham*, 104; of the *Bishop of Carlisle*, 111; of *Lady Mildmay and Child*, 155; &c. are in his usual manner; the resemblance tolerable, and the colouring strong.

MR. OPIE is, as we have observed, distinguished this year more by allegorical than portrait-painting.

The portrait of *Mr. Adam*, No. 85; and of *Lord Stanhope*, 63, are strong likenesses, but not pleasing pictures. He has taken pains with that of *Mr. Mackintosh*, 56; but Mr. Mackintosh makes a finer figure in the family-drawings of the news-papers, than on Opie's faithful canvas.

MR. NORTHCOTE has several portraits, of various merits. But he seems to have bestowed considerable attention on his friend *Godwin*; in whose political millenium, if it could have taken place, he was probably to have been included.

The head has strong expressions of a mixed character; where the artist has certainly not given the predominance to the indications of good.

SIR W. BEECHY and MR. SHEE are, as usual, prolific, but do not require our particular attention.

Landscapes, Drawings, and Sculpture, in our next and last article.

2. Clarke's *Progress of Maritime Discovery—Continued.*

We have now executed the most unpleasant part of our Task; nor shall we dwell any longer on the lesser and unavoidable faults of so large an undertaking, of which only the first volume has yet appeared: The Introduction consists of an *Historical Memoir* of Ancient Maritime Discoveries, divided into four sections: 1. *Earliest Periods*; 2. *Sacred Periods*; 3. *Grecian Periods*; 4. *Carthaginian, and Roman Periods.* Then succeeds the first Book of the main body of the Work, divided into three Chapters, and each Chapter into two Sections. The Reader is in the first place presented with some Illustrations of Commercial History preceding the fifteenth century; and to this succeeds an interesting view of the *Portuguese History* at the same period of time. The second Chapter describes the commencement of the Portuguese Voyages, to the doubling of the Cape of Good Hope, by Diaz. Then follows a connecting retrospect of Indian History, from the death of Alexander to the arrival of the Portuguese in India; and this is succeeded by an excellent account of De Gama's first Voyage. The *Appendix* contains *Galvano's Discoveries.*—Mr. Locke's History of Navigation.—Dr. Robertson's Observations on the Discovery of the Cape.—Renaudot's Voyages of two Mahommedans in the Indian Ocean during the ninth century.—And the Correspondence received from different Friends relative to the Work.—The Undertaking, for a single individual, is truly Herculean: nor has its author any thing to fear from the fair voice of Liberal Criticism, but a just appreciation of great information, labour, abilities, and judgment, displayed in a most interesting and comprehensive Work.—We shall therefore conclude our criticism, by pointing out some of the original and interesting remarks which the present volume contains.

Though Mr. Clarke gives the following decided opinion against any antediluvian-knowledge of the Compass, he details the opinion of writers, who differ from him, with impartiality and candour.

"I cannot believe, notwithstanding the authority both of M. *Bailli* and Mr. *Maurice*, that the magnet was discovered previous to the Flood. This would argue a skill in science among the antediluvians, sufficient to have counteracted, or opposed, the overwhelming chastisement of the Deluge; and it is rational to conjecture, that if mankind had then possessed a knowledge of the Magnet, or had at-

tai ned to any perfection in the science of naval architecture, the more powerful and pervading operation of fire would have been called from its volcanic prisons, and poured forth upon the globe. Besides, as the sacred writer has noticed the origin of many valuable arts, can we suppose that discoveries of such importance as the Magnet, or the science of building vessels which in the smallest degree resembled the awful and mysterious ark, would be passed over in silence? In the divine THEBATH we first behold the origin of naval architecture: constructed without either sails or oars, rudder or anchor, its progress and preservation were alike miraculous, and needed not the assistance of any inferior or secondary power. The ABYSS on which this THEBATH floated, like the *Desert* through which the children of Israel passed, offered no point to which a course might be directed by human ingenuity; in both instances, the immediate interference of Omniscience was necessary and apparent.

"The most minute circumstances relative to the construction of the Ark are, therefore, on every account worthy of attention; and though, as an historian observes, *on a narrow basis of acknowledged truth, an immense but rude superstructure of fable has been erected,* we must prefer this basis however narrow to any other, since that alone is founded upon a rock."

At the conclusion of the first section, the opinion of *Bailli, Rudbeck,* and *Whitchurst,* are considered relative to the celebrated *Atlantis* of Plato. Our author then adds:—

"Notwithstanding such authorities to the contrary, may I presume to add, that I cannot change an opinion long indulged, *that* America *was the real Atlantis of Plato.* In support of this idea, a passage from Ælian may be cited, who relates from *Theopompus,* that in a conversation which *Silenus* held with king *Midas,* he informed him, *that Europe, Asia, and Africa were islands; and that was alone* THE CONTINENT, *which lay beyond the world.* Another curious passage in support of this opinion, occurs in *Zarate's History of the Discovery and Conquest of Peru.*"—which Mr. C. subjoins.

In the second section, the voyages of Solomon's Mariners to *Ophir* are illustrated, as well as the various and opposite opinions concerning *Tarshish.* Mr. Clarke adopts Bochart's opinion, that by Ophir *Ceylon* was intended, and agrees with *St. Jerome* and *Tremellius,* that by *Tarshish* was meant the Sea in its most extensive signification.

"The devout *Matthew Berealdus,* in his latin *Chronicon,* supported during the year 1575 the above conjecture; which was afterwards followed by many later writers, and has been recently illustrated in an able manner by M. *Gosselin,* who confines the maritime commerce of Solomon to the Arabian gulf. Thus, when Isaiah styles Tyre the daughter of *Tarshish,* the epithet becomes intelligible and appropriate, if we translate it, *the daughter of the sea.* The expression of mariners, as Purchas observes, is sufficiently common, *that gold, silver, and ivory came from sea; that they brought this or that from sea; that shortly they are to go to sea, or have lately come from sea, without naming any port.* It may also be added, that when *Jonah* attempted to fly from the presence of God, it is more natural to suppose that he went to *sea,* than that he could hope to conceal himself in any quarter of the globe, because it was distant from *Nineveh.* His punishment strikingly accords with this idea; when the *Tarshish,* or *Ocean,* to which he had trusted for concealment, threatened his instant dissolution: for the Lord raised a mighty tempest, and declared unto the prophet, that, though he should *take the wings of the morning, and dwell in the uttermost parts of the sea,* (Tarshish) he could not escape from the knowledge of his God."

Respecting the Phœnician Periplus of Africa, Mr. C. delivers the following Opinions:—

"Previous to this destruction of *Old Tyre,* and about two years after Nebuchadnezzar had taken and plundered the city of *Jerusalem*; some Phenician Navigators are said by *Herodotus* to have sailed, according to the orders of *Pharaoh Necho,* from the Red Sea, and to have circumnavigated Africa. This monarch, who flourished 601 years before the Christian period, was the son and successor of *Psammetichus,* and the same who slew *Josiah,* king of Judah. In the beginning of his reign *Necho* had in vain attempted to cut a canal from the Nile to the Red Sea; nor did he desist until an incredible number of his subjects had perished in the undertaking. His perseverance or vanity were equal to the most Herculean tasks; and after the failure of the above project, he fitted out some vessels for the purpose of making discoveries on the eastern coast of Africa. It is probable that a mortified spirit was prompted on their return to magnify what they had performed; and that some ingenious geographer composed a fabulous report which *Pharaoh Necho,* issued, as the public notice of this incredible voyage!

The second section is thus concluded:—

"It is however highly probable that the assertion of such a fact, as the possibility of sailing round Africa, must have had its due weight on those early Portuguese navigators, who were formed in the maritime school of *Sagres.* Such an idea is favoured by Dr. *Vincent* in his voyage of *Nearchus*; where he observes that a remarkable coincidence exists, between the date of the first edition of *Herodotus,* and the voyage of *de Gama.* This coincidence is still more apparent, if, instead of noticing de Gama's voyage, we subjoin the year when the Cape was first doubled by *Bartholomew Diaz.*

"First edition of Herodotus 1474
"The Cape first discovered by Diaz.... 1486."

In the course of this Introductory Memoir, Mr. Gosselin's Geographical Works are frequently noticed. The Athenian Trade on the Euxine is given from a Work of our author's learned ancestor, *The Connection of Roman and Saxon Coins.* An abstract is inserted of Dr. Vincent's Voyage of Nearchus, and also of his first part of the Periplus of the *Erythrean*: and to the whole is subjoined an excellent *Treatise on the Commerce of the Romans,* given by Mr. Clarke's grandfather to Dr. Taylor for his Elements of Civil Law.

We then come to the first book of the main body of the Work, which is thus introduced to the reader's notice:—

"To illustrate the course of the renovated spirit for Maritime Discovery, which, during the remote periods of modern history that preceded the fifteenth century, cheered the gloom that had chilled or overshadowed the commercial genius of Europe, is the arduous task I shall next endeavour to perform. Looking forward with a becoming diffidence of my own abilities, and feeling a respectful anxiety for the suffrage, or gratified perusal of my readers."

On the taking of Constantinople by the Turks, in the year 1453, by Mohammed the second, Mr. C. subjoins the following curious remark:—

"It is singular, that in this downfal of the great mart of Indian trade, and in the late overthrow of the tyrant of Mysore, who made such powerful exertions to injure the more modern system of European intercourse with the East, circumstances occur that have a striking similarity with each other: *Constantinople,* like *Seringapatam,* was

taken by storm after a most bloody resistance; and the Greek emperor, who, like Tippoo Sultan, resolved not to survive his empire, was found under one of the gates, trampled to death by the multitude."

As Mr. Clarke justly observes, (p. 25. N. d.) it is singular that Dr. *Robertson*, in his View of the Progress of Society in Europe, from the subversion of the Roman Empire, to the beginning of the 16th century, should not notice the celebrated institution of the Golden Fleece, and also that he should entirely pass over the kingdom of Portugal, at that time the first maritime power in Europe.—But this is only one of the many errors that abound in *Robertson*; and it is remarkable that no one before our author should have discovered, that this historian has been led into a strange mistake respecting the navigator who first doubled the Cape of Good Hope:—

"No fact," says Mr. C. (p. 348. Note o) "seems to have been more confused by late historians, than this first doubling of the Cape by *Diaz*. *Dr. Vincent* is one of the few writers who have stated it with accuracy. *Robertson* seems to have been misled by *Lafiteau*: 'Neither the danger to which he was exposed by a succession of violent tempests in unknown seas, and by the frequent mutinies of his crew, nor the calamities of famine which he suffered from losing his store ship, could deter him from prosecuting his enterprise. In recompence of his labours and perseverance, he at last descried that lofty promontory which bounds Africa to the south. *But to descry it, was all that he had in his power to accomplish*,' (Hist. of America, vol. 1. p. 79. 8vo. ed. 1792.) Even *Herrera* himself seems to have possessed but a confused idea of the Portuguese discoveries; for when speaking of the mode in which the kings of Portugal and Spain adjusted their respective demands in 1494, after the first voyage of *Columbus*, the Spanish historiographer adds: 'The *Portugueses, who at this time* had discovered very little beyond the island of *San Tome*, under the equinoctial; that they might not be behind hand with their neighbours, exerted themselves so vigorously, that they *soon after* passed that Cape so dreadful among the Ancients, now called *de buena Esperança*, or Cape of Good Hope.' (*Stevens's Translation*, vol. 1. p. 117.")

Nothing has been more wanting to Geographers, than some accurate, yet simple divisions of the ocean. Mr. Fleurieu the editor of Marchand's Vogage, made the attempt; but as Mr. C. observes, he rather confused, and increased the terms employed, than simplified their number. Our author, therefore, offers the following divisions to the attention of nautical men: (p. 354.)

"(1) The *North Atlantic*, extending from the equator to *Cape Farewell* on the coast of *Greenland* in 60° north latitude. (2) *South Atlantic*, from the equator to an imaginary line drawn from the *Cape of Good Hope* to *Cape Horn*. (3) *Indian Ocean*, bounded to the south by a line carried from the *Cape of Good Hope* to the south-west point of *New Holland*. (4) *The North Pacific*, flowing from the equator to *Cape Prince of Wales* in the latitude of 66° north. (5) *South Pacific*, from the equator to an imaginary line stretched from the south-eastern point of *Van Diemen's Land*, to the southern cape of *New Zealand*, and continued thence to *Cape Horn*. The remaining portions of the Ocean flowing round the northern, and southern Poles, to be called the *North* and *South Polar Seas*."

The Flower on the Compass employed to mark the North, has long perplexed our antiquarians, and given an opportunity to our neighbours the French, to claim the merit of being the original discoverers. But Mr. Clarke informs us, that the loadstone was brought from Ophir by Solomon's Navigators, (p. 397.) and that the Flower on the Compass, hitherto called the *Fleur de lis*, seems, with more reason, to have been *the Lotus*, since Mr. Daniel observed the same to be frequently introduced on some of the most ancient of the Hindoo temples; some specimens of which are subjoined.—In addition to these conjectures, we have at page 451, a most curious note from the original of *Osorius*, the whole of which was omitted by *Gibbs* in his translation of that Historian; which informs us that the Portuguese on their arrival in the Indian ocean, found the Moorish navigators were not only acquainted with the Compass, but also used *Quadrants*, and not the *Astrolobe*.

Mr. Clarke's description of the embarkation of Gama, particularly struck us:—

"The conduct of *Gama* previous to his Voyage, clearly evinces the opinion which that great navigator entertained of its dangers, and his determination to surmount them with the permission and support of Divine Providence. His mind was highly wrought; the natural piety of a mariner was increased by the situation in which he was about to be placed; he was *to see the works of the Lord, and his wonders in the deep*, to traverse an ocean hitherto considered as impassable. Ignorance might magnify its terrors, but even experience trembled when sent to encounter dangers which the received and general opinion of that age had declared to be insurmountable. But *Gama* possessed a firm reliance on his God; and therefore conducted the companions of this perilous voyage to the chapel of *nossa Senhora de Belem*, or *Bethlehem*, which Prince Henry had built on the sea shore, about four miles from Lisbon: the anxious hours of the night were spent in prayer, and in the performance of devout rites. In the morning of Saturday, July the eighth 1497, the awful procession of the sacred ministers of Religion preceded one of the most solemn and affecting scenes which history can display. The King, attended by his court, was present to honour the embarkation. Gama, and his brave mariners appeared: their resolution could not stand the general dejection, and their tears increased the distress of all who beheld them; they then hastened to perform their duty, and followed their commander. Thousands remained immoveable on the shore until the most distant trace of the receding fleet had disappeared."

The Literary World must be indebted to Mr. Clarke, for the manner in which he has detected the gross plagiaries of the *Abbé Prevost*.—We now for the first time are informed that the Original of nearly the first eight volumes of the French *Histoire Generale des Voyages*, exists in our own language, under the title of *A New and General Collection of Voyages and Travels*, (1744-1747) 4 vols. 4to. written by a *Mr. John Green*, and published by a bookseller of the name of *Astley*.

"The superior merit of this Collection was acknowledged even by foreigners, and before the completion of the first volume, the *Chancellor of France* deemed it worthy of attention. He accordingly requested the *Abbé Prevost*, Chaplain to the Prince of Conti, to translate it: the execution of this occupies the seven first volumes of his *Histoire Générale des Voyages*, and part of the eighth. But I am sorry to add, that, in the performance of his

task, *Prevost* has taken very unwarrantable liberties; has shewn, throughout, a desire to supplant the fame of the original work, which is not once named in the title, and by affixing his own portrait to the first volume, few readers in the present day are aware that the Original exists in their own language. Such was the confusion the *Abbé* produced in his translation, by transposing passages he afterwards inserted as his own, and by the mistakes which he made; that *M. Pierre du Hondt*, an excellent judge of the merit of *Astley's* work, brought forward a new translation at the *Hague*, in which he restored the mutilated parts. An edition was also printed by *Didot* at Paris in 12mo. 1749, and some of the volumes at Dresden; the whole amounted to fifty-six volumes."

This Volume is enriched with Engravings from the drawings of that excellent artist Pocock: among which we observed *Cape St. Vincent*, *Madeira*, *Cape Verde*, and *Columbo Harbour* in *Ceylon*. The whole is richly ornamented. Some excellent Charts are also given by *Arrowsmith*. From every view of this extensive Work, we trust Mr. *Clarke* will soon favour the public with another volume.

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3. *Wartoniana.*—(*Concluded from p.* 281.)

It was strongly and justly expressed by one of Mr. Warton's hearers, when curate of Woodstock,* "that though not one in ten could understand half he said, every body loved him." This places the amiable character of the man in the fairest light. Though a graceful and distinct enunciation is a quality which highly captivates a common audience in favour of a clergyman, Warton was respectable without this natural gift; though a minute attention to the external forms of decorum, and the affectation of a grave demeanour which nothing can disturb, frequently passes with the ignorant for wisdom and sanctity, Warton, conscious of the purity of his own heart, despised such silly lures for popularity; and gained a greater and more lasting influence by his condescending, easy manners, than he could possibly have derived from the most stiff and formal correctness of words and looks. Of all the decent ceremonies of religion, however, he was a strict and an attentive observer; and his own example rendered goodness amiable in the eyes of others, when they saw it might be practised without gloom, and without austerity.

When he became rector of Kiddington, in his connection with that small, agreeable parish, he evinced his usual mild and benevolent disposition. Without the parade of feeling, without the ostentation of generosity, he was pity and forbearance personified. He never attempted to encrease the value of his benefice by "studying to find out latent dues:" he never pressed his tithe farmer for his rent; but received it in such sums and at such seasons as suited his tenant.

His curate, with whom he had not settled for some time, (for during the last few years of his life he had given up the regular service of his church, as being too distant from Oxford) has been heard to declare, that after dining with him one Christmas-day, at the hospitable mansion of the late Edward Gore, Esq. of Kiddington, Warton beckoned him into the hall, and pulling out his purse, thus addressed him: "I expected to have received more money to day, Sir—I shall want about ten pounds myself to defray the expences of a journey to London.—You are welcome to all the rest, Sir—All the rest Sir—I wish it had been more."

As he troubled no one for money, so no one could trouble him. He paid others as he received himself. No receipt was ever asked by him, and it is believed was seldom given. At his lamented death, considerable arrears were due to him, and he owed some trifles to others.

About two or three weeks before this event took place, he had spent some days in Woodstock, and appeared cheerful amidst his own friends; but was evidently infirm and broken. He had been advised for the sake of exercise to buy a particular horse, which being low and very strong seemed well adapted for his use. On this expedition he set out one morning, attended by the writer of these few remarks. The ride lay through Blenheim Park; and though Warton was not uniformly communicative, especially on subjects connected with literature, the beauty of the scenery, the recollection of the happy days he had spent in the vicinity, seemed to recal all the pleasant ideas with which they can be associated.

The anecdotes connected with the history of Woodstock and its neighbourhood, which he related in the course of a ride that did not last above three hours, would have filled a small volume: in short, his stream of mind flowed copiously and without intermission on all subjects that were incidentally started; and he never appeared to his companion so agreeable and so full of general knowledge as on that occasion. Alas! it was the last in which they ever met. The horse was found to suit him exactly—it was purchased, but mounted with difficulty:* it was rode back to Woodstock, of which he took his leave next day, and never more returned. A short time before, while sitting at a gentleman's table at that place, he had been seized with a slight paralytic stroke which affected one of his hands.—The next attack of the same disorder speedily proved fatal.

It may appear extraordinary that, with Warton's abilities and acknowledged worth, he did not rise to greater preferment and distinction. The solution of this difficulty is easy—he wanted ambition, and that suppleness of address which generally obtains patronage. "If you wish to be Pope of Rome," says the proverb, "you must think of nothing else." Warton, absorbed in the elegant pursuits of literature, disdained to pollute his mind with schemes of worldly aggrandizement. When he acquired a competence, he seems to have wished for no more. Senior fellow of his college, he might have expected, on a vacancy which took place, to have been elected its head; tutor to the son of the prime minister of this country, a splendid field was opened to a man whose heart had panted to rise; but Warton derived no advantage

* The late poet laureat appears to have served Woodstock, except during the long vacations, from the 27th of April 1755 to the 3d of April 1774, and always felt a peculiar pleasure in adverting to his connection with that place. In his "Ode to a grizzle-wig," which by the bye he is not recollected to have worn, but to have claimed to the last "the *liceat* of an humble BOB," he says:

No more the wherry feels my stroke so true;
At skittles, in a grizzle can I play!
Woodstock, farewell! and Wallingford, adieu!
Where many a scheme reliev'd the lingering day.

from either circumstance; yet it is not known that he ever expressed himself disappointed, or pined in secret at being overlooked.

On one occasion, the just, but imprudent severity of his wit is said to have prevented his success; on another, his indolent habits may possibly have rendered him apparently unworthy of the prize. With all his talents, he certainly was not the best qualified person to be tutor to a young man of fashion, who perhaps had little taste for study.

Be this as it may, it is known that Warton rather lost than gained by a connection which would have led some to the heights of preferment.

On these subjects both Mr. Mant and his anonymous, but able biographer,† have preserved a delicate silence, and it would ill become a gleaner to discuss them more at large. The monument which Mr. Mant has raised to the fame of Warton will be a lasting honour to himself: his criticisms and illustrations are just, candid, and liberal, and shew how well he is qualified for undertaking a more difficult task. As he has performed so much, and with such felicity to the credit of Warton, let us hope he will be farther induced to revise and republish "The History of English Poetry," and continue it down to the present time. For such a work he seems admirably qualified; and while he thus twined another wreath to adorn the bust of Warton, he would form an unfading crown for himself. Happy shall the writer of this be, if the hint he has thrown out may be instrumental in rousing the attention of others, who have more influence with Mr. Mant, to a subject in which the public must feel a particular interest; happy shall he be to find, that in meaning to discharge a debt of private gratitude and respect, he stands acquitted of officious zeal, in the estimation of those for whom he feels all possible deference, &c. NUMA.

† See Biog. Dict. Art. Warton.

Mr. EDITOR,

A Literary Society, upon a plan resembling that proposed by one of your Correspondents in the last Number of your Journal, will, it is to be hoped, soon be carried into effect. It would not interfere with any of the literary or scientific Societies already established; and it would contribute, in a very essential manner to the propagation of letters, to the progress of refinement, and consequently to the increase of national happiness and national dignity. I should prefer a plainer title; for instance, that of the "*Literary Society of London.*" Its example would doubtless soon be followed in other large towns throughout the united kingdoms; and we should soon hear of the Bath Literary Society, the Edinburgh Literary Society, and the Dublin Literary Society.

In addition to the objects pointed out by your Correspondent W. M. as falling within the views of such an Institution, I would suggest the appropriation of a large sum for premiums to be annually distributed to those who should distinguish themselves by original compositions in prose or verse, or by improved translations of foreign authors, ancient or modern. In like manner, honorary premiums might be proposed for the elucidation of obscure and defective parts of ancient and modern history; for new and authentic biographical memoirs; for philological and critical essays, &c. And, if the funds should be sufficiently flourishing, the society might extend its pecuniary assistance to those who should be inclined to travel (their qualifications for such an undertaking being previously ascertained,) into foreign countries, for the purpose of illustrating the literature, commerce, manners, and government thereof.

Authors who should have received from the Society premiums for their writings, should consign such writings to that body, who should afterwards print them at their own expence, dividing with the Authors a certain portion of the profits arising from the sale. The portion of the profits reserved by the Society itself, should be added to the general fund, to be applied to the defrayment of the current expences. LITERARUM CULTOR.

May 6th, 1803.

NOTICES.

At Mr. Barker's Sale of Coins and Medals, noticed in our eighteenth number, the following were the prices at which some of the rarest were sold:—Oliver Cromwell's fifty-shilling piece 1656 was bought by Thane, for £24 3*s*. It had cost Mr. Barker £70.—Miss Bankes bought the Petition Crown of Charles II. for £90.—Sir Mark Sykes paid 100 guineas for one worse in edge and inscription, and very little better in ob—— and reverse. The Saxon Coin before Ceolnoth, was bought by Mr. Miles for the British Museum, at £5 7*s*. 6*d*.—Mr. Young purchased the Ryal and Span. Ryal of James I. for £4 4*s*. and David II. Scots Gold, for £31 10*s*.

Benedict Virág, at Pesth, has lately published an excellent translation of Horace's Art of Poetry in the Hungarian language.

Mr. Koramsin, at Moscow, publishes a Russian Journal or Magazine, intended both for instruction and amusement. The two numbers for January and February of this year contain among other articles: 1. An interesting episode of the important history of the ancient city of Novogorod, told in the Editor's best manner, entitled Maria, regent (Possádniza) of Novogorod. This Northern heroine placed herself at the head of her fellow-citizens to oppose the execution of the despotic plans of Czar Jwan Wassiliavitsch, and held for a short time, the reins of government of her native town. 2. Remarks on the political system of Great Britain and France. 3. Observations on the magnanimity of the English. 4. On criminal and civil laws with regard to Russia.

Major Anthing in the Imperial Russian service, the biographer of the late Fieldmarshal Count Suwarow, is preparing for the press, a picturesque tour through Russia. He is assisted in this undertaking by Mr. Saunders, an English artist, who, by the desire of Prince Bedboroko, some years since, went to Russia to engrave some of the finest paintings of the rich collection of that nobleman.

From an authentic catalogue of the Manuscripts, which in 1797 were delivered to the French commissioners at Rome, it appears, that they consisted of 20 Hebrew manuscripts, 49 Syriac, 79 Arabic, 18 Coptic, 12 Abyssinian, 11 Chinese, 133 Greek, and 275 Latin.

At a late meeting of the *Academia Etrusca*, at *Cortona*, Lud. Coltellini read a memoir on a basso relievo of bronze, lately dug up in the vicinity of that city, which, in his opinion, represents Minerva at the moment she is directing the construction of the ship Argos.

Eslinger and Collignon, booksellers at Francfort and Metz, have published the following work, "*Histoire de la vie de Pierre III.* &c." History of the life of Peter III. presenting, in an impartial point of view, the causes of the revolution of 1762,—by Mr. von Saldern, late Imperial Russian Ambassador, at several Courts of Europe. As we deem it our duty not only to give notice to our readers of such foreign literary productions, as appear to us worthy of their attention, but also to warn them against worthless publications ushered into the world under pompous titles, in order to deceive the public, we feel ourselves imperiously called upon to declare, that the work under consideration is neither more nor less than a libel on Catharine II, abounding with incorrect statements, false allegations, and erroneous accounts, and bearing internal evidence that it is not composed by the celebrated statesman to whom it is falsely ascribed.

Mr. *Becker*, Professor and Inspector of the Electoral gallery at Dresden, intends to publish by subscription a choice collection of engravings of the "*Santa Notte*," of *Coreggio*, and other first-rate paintings of that celebrated gallery, which, with regard to the most exquisite productions of the Italian school, is inferior to none, but the present gallery of the Louvre.

Alexander Laborde, whose proposals for publishing by subscription a picturesque tour through Spain, are noticed in the 17th number of the Literary Journal, has edited a description of the mosaic pavement discovered in December 1799, in the ancient town of *Italica*, now the village of *Santiponce* in Seville, intended as a specimen of the manner in which the above work is to be executed. To judge by this specimen, it will be one of the most splendid and expensive works which have fallen under our observation.

Count Sparre, Lord High Chamberlain of Sweden, late tutor of the present King, and member of several Academies and Literary Societies, died on the 30th January last, at Acero, his country seat in Sudermania, in the 72d year of his age.

Professor Tode, at Copenhagen, has lately published an excellent Danish translation of *Roderick Random*.

The celebrated Zoega has nearly finished his work on the Coptic MSS. in the Collection of Cardinal Borgia: it will greatly facilitate the knowledge of the Coptic language.

MANNERS.

ALTHOUGH it may appear presumptuous to anticipate any of the decisions of posterity, it seems not improbable that, a century hence, the present may be denominated the AGE OF TASTE. Taste is a word which occurs more frequently than any other in all our printed annals, and our posterity must naturally imagine that it was a principle which in our times pervaded all animated nature and all moveable art. What it is, those who come after us may be as much at a loss to define, as we are ourselves; but that it is something, and a very important something, they must conclude from every species of evidence.

It would, however, be prudent in us to afford our children's children some data by which they might form an idea of this universal principle or passion. We cannot, it is hoped, be wholly inattentive to our character in future times, and it behoves us, therefore, to remove those perplexities which obscure them, and must hereafter render our conduct paradoxical. But in what manner we can do this, by what laws we shall reduce our taste to a common standard, by what means we shall limit the objects of taste, or persuade our successors that we have not forgot the meaning of the word, are difficulties which appear insuperable. So many usurpers have arisen to dictate in all matters of taste, and to extend its boundaries over persons and things it was never intended to controul, that we despair of seeing a regular government established in place of that revolutionary tribunal, which changes its laws and regulations, at least, every moon, and leaves no room for reflection or appeal to original principles.

At this season of the year, taste presides over routs, and balls, and dinners. In these, we perceive that it consists of the aggregate of crowded rooms, chalked floors, and variegated lamps. When these are described by the able historian whose province it is to record such associations, we seem to have all which association can give us. In those splendid entertainments which formerly were denominated dinners and suppers, but which, by a fortunate coalition, are thrown into one, and called *dinner-suppers*, taste is displayed in an exhibition of articles, some of which are not intended, and some are unfit to be eat; and extreme taste, or that which merits and receives the eulogiums of the historians above mentioned, consists in the lateness of the hour of assembling. Hence some have supposed that taste is more particularly connected with midnight, and that the light of the sun, for some reasons not openly avowed, has of late years become particularly obnoxious to persons of true taste.

When we have once agreed to regulate our time by the principles of taste, it is but a slight transition to place our dress under the same controul, but here it must be confessed we are every day departing farther and farther from any thing like a standard. A few years ago, taste prescribed that dress should not only be applied to decorate the person, but to become an integral part of the human body; hence the addition of cork rumps, wax bosoms, and other articles necessary to complete the work which nature had very unaccountably left unfinished. But taste, which sometimes enjoins superfluities, will at others deny its votaries common necessaries; and accordingly has lately prescribed that nature, which by the former experiments was found incapable of improvement, should be publicly exposed, and those objects displayed which had been concealed for near a century before. This is now in a great measure, *true taste*, and has been attended with some very singular effects in the manufacturing world. We are assured by an eminent artist that a dress may now be made so exceedingly fine and thin, that it may be either carried in a pocket-book, or conveyed by the two-penny post to any part of the town.

But while this taste prevails with the female habiliments, the gentlemen have a rule of taste peculiar to themselves, and which can best be described by saying that it is the very reverse of the former. With the ladies it is the object to shew how little will do for dress; with the gentlemen, how much they can carry without fatigue. Hence the total disuse of silk, linen and cambric, and the substitution of broad cloth and leather. But this too is taste, and as such has the effect of law. The lords of the creation have tailors and boot-makers for their preceptors, and jockies or

coachmen for their examples. With such instruction, how can they be otherwise than deeply learned in affairs of taste?

In our amusements, we have likewise a taste appropriate to them. This in the drama is no longer the province of the author, but of the scene-painter, the scene-shifter, and the carpenter; nor would it be just to deprive the musical composer of his due share in this compound taste, for he has done wonders. By dressing the author's dialogue sometimes in a solemn suit of semibreves, and sometimes in the plain garb of minims; by sometimes helping him out with crochets, and sometimes pricking him on with quavers and semiquavers, he has given to gross nonsense a refined taste, and has kept incapacity out of sight with astonishing ingenuity.

In books, too, there is a taste not very different from this, for as in the drama our taste depends on the painter, and carpenter and the musician, so in books we owe it to the stationer, the printer, the engraver, and the book-binder. The stationer affords superfine wire-wove paper hot-pressd; the printer supplies types as fine as copper-plates, "with a rivulet of text flowing through a meadow of margin;" the binder makes the author pass for a man of taste, by his *elegantiss. compact. cor. Turcic. ful. deaurat.* &c. or *elegam. relie en Maroquin feuil. dorées.*

But while every article of life has a taste affixed to it, it cannot be concealed that some have very seriously objected to the word, and at present, if our information be not incorrect, another is substituted which is yet more unintelligible, and consequently better adapted to general purposes. This is STYLE. One man lives in a very genteel style, while another rode his horse last Sunday in the park in a very pretty style. Mrs. Siddons's style of playing Lady Macbeth is much admired, but not more than Mr. Hoby's style of boot-tops. Mr. Fox's style of oratory is supposed to resemble that of Demosthenes, but no comparison has yet been found for the style in which Lady ——'s ball-room was chalked last Wednesday. Few men are much commended for their prudent conduct in domestic arrangements, but some of the most celebrated heroes of Bond-street are celebrated for doing things in style.

So general is the application of this magical word, that the newspaper critics (by far the most acute in the known world) have had a prodigious addition to their necessary employments, and are sometimes expatiating on the style of an Epic Poem, and sometimes descanting on the style of a grand dinner: sometimes examining the style of a treaty, and at other times enlarging on the style of a song; sometimes displaying their architectural taste on the style of a suite of rooms, and sometimes proving the diversity of their talents on the style of a *pas des deux*—sometimes informing us that a member of Parliament spoke in an animated style, and sometimes expatiating on the interesting style of a girl who appeared at the Old Bailey for stealing quart-pots—sometimes they describe the most stylish dresses at the Opera, and sometimes they repose on the style of Madame Recamier's bed, or instruct us in the style which has changed a tub into a chariot, and a coach-box into a dicky.

From these specimens it appears that style may in time accomplish the abolition of taste, and that upon the whole it may be more safe and useful, since there are a few who yet remember the old meaning of *taste*. It remains, however, to be added, that there are some affairs of high life and low life, to which neither taste nor style can be applied. There is nothing yet very stylish in the common disorders to which mankind are subject, such as fevers, &c. nor have we heard of any man of fashion having a fit of the gout in a good style. Nervous complaints, indeed, are in some degree connected with style, and there are taste and elegance in the hectic flush of which we hear frequently. But in general pain is not very interesting, nor is there any standard of taste in agonies. As to death it has long been voted a *bore*, and no person of *ton* will allow it to be mentioned with patience.

Nor has style been yet extended to the affairs of the nation; nobody speaks of the style of the late war (which indeed was somewhat confused) nor of the late peace. An act of parliament has yet nothing genteel or stylish about it. Nor are the courts of law under any order in this respect. We hear now and then of a barrister giving a stylish dinner, or making a stylish figure at a masquerade, but he deserves none of this praise when he addresses a jury. Our judges give no charges in a stylish manner, and although criminals are dressed in style, and "look very interesting," they are transported or hanged in the most vulgar manner imaginable. It cannot be denied, however, that some men, by an excess of attention to the fleeting style or taste of the day, have brought themselves into those situations which are extremely awkward for a gentleman, because nothing in which he is accomplished, can be of the least service. R. S.

2. *Letter on Duelling.*

Mr. EDITOR,

Your lucubrations on duelling have been very acceptable, but you have not traced the practice to the highest antiquity. The first fighters must undoubtedly have contended with their fists, for fists must have been made before swords, or fire-arms; now, in order to do away the present barbarous mode, why should we not be enjoined by act of parliament to have recourse, in all personal combats, to that right ancient weapon which nature has supplied? You may object that men of unequal skill would be paired. But is not that the case at present just as much? Most men are taught fencing, and practise shooting, but how rare to find any who have attained an uncommon expertness or skill in either; and if they are found, what is the chance that they will meet in single combat?

The abolition of swords in duelling was, in my opinion, injudicious, because the use of pistols does in a great measure leave the decision to chance; now it is plain that chance cannot decide an affair of honour, of punishment, or of revenge. Chance may make one of the parties fall, but that may be the unoffending party.

All fighting must, as I have observed, have been originally with nature's weapons. The introduction of artificial weapons was the policy of nations to ren-

der them more upon an equality. It has been said that the introduction of gunpowder shortened wars, and rendered them less destructive. I should be glad to know what could have lengthened the late war, and rendered it *more* destructive?

So much for history—But I am not contending for the introduction of fists between nations, nor for putting Humphries and Mendoza in commission instead of Duncan and Nelson. I really think that *duellists* ought to be obliged to fight with nature's weapons, because the battle would thereby be prolonged, and the seconds might interpose their friendly services between each round, and *surgeons* (if they are not *frightened* by some late events) might still attend with their styptics and their plasters.—I beg, therefore, I may not be misunderstood, as inclining to make any change in the art of war. No: we must still as a nation have recourse to the old system of powder and ball. Let us indeed consider what would have now been the posture of affairs, if men had armed only with fists.—Why, Sir, for aught I know, the family of Belcher would at this moment have been upon the throne of this kingdom, and the Ruffian had probably been First Consul. I am, Sir, yours,

L. L.

POLITICS.

1. *On the Woollen Clothiers' Bill.*

AS the woollen trade is one of the most important branches of the business of this country, and as it is known that the laws respecting it are at present submitted to the consideration of parliament, we conceive that it will not be unacceptable to our readers to receive some information concerning these objects.

The woollen trade was one of the first species of manufacture which was carried on in this country for foreign sale, and to any extent. It contributed in a considerable degree to the revenue of the state, at a time when its other sources were very small; and hence it obtained a large share of the attention of the legislature. One of the contrivances accounted the best by legislatures of those days for encouraging any species of employment which became a favourite, was to make a multitude of laws for its regulation. The woollen trade received this encouragement in very full measure; and must have been ruined by the care of its law-makers, had not their regulations been almost entirely neglected. There is a particular period between barbarism and refinement, when it is imagined that laws ought to be made for every thing, that laws are the cause of every improvement, and that the course of nature never leads to any desirable end. Commerce at that period is loaded with laws and regulations;—and there is hardly a country at this day in Europe whose improvement is not retarded by the fetters laid upon the exercise of its industry, and the disposal of its produce by the statutes of an unenlightened age.

Many of the laws enacted in England when the ideas and circumstances of the people were very different from what they are now, are allowed to undergo a sort of virtual repeal, by want of execution. This, however, to speak of it in the mildest terms, is surely a very slovenly mode of procedure, and unworthy of an enlightened country, which justly boasts of its legislature. If any law be of such a nature that it is better not executed, why should it not be taken out of the way? If it do no more evil than encumber the statute book, and render the system of the laws complicated and difficult to be understood, even this is of no small moment. But we should think a deeper and more important inconvenience could easily suggest itself to the minds of wise legislators, that the habitual practice in which the people are trained, of disregarding one half of the laws which they know to exist, must have a powerful tendency to lessen their reverence for the laws in general. When the people find a distinction made of the laws, into those which may be violated with impunity, and those which cannot be violated without punishment, they immediately conclude that whenever they can, by their address, elude the punishment, the latter class of laws are placed exactly on the same foundation with the former. This is undeniably the mode of thinking in this country with regard to all the laws which are not republications of the precepts of religion, and therefore obligatory, on a previous, and higher account. And thus the practice of permitting disobedience to annul a law, prevents that most salutary of all associations in the minds of the people, the association of their moral feelings with obedience to the just requisitions of the state. It is not easy to say to what a degree the interests of a country are injured by so mischievous a derangement of the moral sentiments of her people.

But there are many of the laws of England, which though not very strictly executed, have nevertheless not fallen into perfect disuse, and often impose very severe and impolitic restrictions upon different classes of the community. Of this nature are many of the laws respecting the woollen manufacture, which have at last become so oppressive that the manufacturers have been compelled to apply to Parliament for relief from them. The laws of which they chiefly complain are that of 5th Eliz. c. 4. known by the name of the statute of apprenticeship, which prohibits any person from exercising any trade to which he had not previously served an apprenticeship of seven years at least; 2d, that of 5 and 6. Edw. VI. c. 22. prohibiting the use of certain machinery in the manufacture of woollen cloth; 3d, that of 2 and 3 Philip and Mary, c. 11, prohibiting the use of more than one loom in any house not in a market town; 4th, that of 5 and 6 Edw. VI. c. 6, of 2 and 3 Philip and Mary, c. 12, of 4 and 5 Philip and Mary, c. 5; 43 Eliz. c. 10; 4 James I. c. 2; 21 James I. c. 18; 10 Anne, c. 16; 1 Geo. I, c. 2; and 13 Geo. I. c. 23, respecting the length, breadth, and weight of cloth, the tentering, stretching, and straining, and the viewing, washing, and sealing of it, by searchers, overseers, and inspectors, &c.; 5th, that of 13 Richard II. c. 11, respecting the sale of cloths tacked or folded; 6th, that of 3 Hen. VII. c. 11; of 27 Hen. VIII. c. 13; of 33 Hen. VIII. c. 19, respecting the exportation of cloths unbarred, unrowed, or unshorn; 7th, that of 5 and 6 Edw. VI. c. 6. and 21 James I. c. 18, respecting the pressing of cloth; 8th, that of 5 and 6 Edw. VI. c. 16, respecting the boiling of wool with certain

ingredients; 9th, that of 43 Eliz. c. 10, and 21 James I. c. 18, respecting the prohibition of the uses of lambs' wool.

The first of these laws, the statute of apprenticeship, is one of the least calculated to answer the end for which it was intended, of all the rude contrivances of our ancestors, which still encumber our legal code. It was enacted for the purpose of obtaining security, that insufficient workmanship should not be offered to public sale, by compelling the workman to receive, as was thought, a proper education. But such a regulation has no tendency to obtain the security required. When improper goods are offered to sale, it is generally the effect of fraud, not of inability. And the proper security for the perfection of goods is not statutes of apprenticeship, but the interest of the manufacturer, who, in such a state of society as the present, knows well, that if he uses not his customers, as well as his competitors use theirs, he cannot hope to preserve their business. Apprenticeship, besides, has no tendency to form the workman to skill in his business. It has a tendency rather to form him to idleness and negligence, by giving him no interest either in the quantity or quality of the work which he produces. If you pay him from the beginning for what he does, and raise his wages according to the perfection of his workmanship, making him pay in his turn for the materials which he might sometimes spoil, you give him an immediate interest both in the quantity and quality of the work which he produces, you give him the greatest motive both to diligence and care; and he will learn his business with diligence and care in half the time that he can without them. The imperfect work too, which he performs, while learning his craft as an apprentice, is offered to sale by the master in the same way as if he were no apprentice, and with the disadvantage of being more slovenly executed. And another consideration of importance is, that no great length of time is necessary to learn any of the common arts or trades. The lessons even of a few weeks, might be sufficient to explain every thing that is necessary even in some of the most complicated of them. The dexterity of hand, indeed, is a work of time, and depends upon practice. But the learner will undoubtedly practise with most diligence, when he is paid for his diligence.

The inconveniences imposed upon various trades by this statute, and by the bye-laws of different corporations grafted upon it. are very great, and may form the subject to us of some reflections hereafter. At present we must confine ourselves to the hardships it lays upon the woollen manufacture. According to the present state of the trade, it is a fact that not above 10 weavers in the hundred have been apprenticed, and not above one tenth of the demand could be supplied, were it necessary to employ none but legal weavers. Many fluctuations often happen in a trade in the course of seven years, while a new supply of apprentices is preparing; and it is evidently impossible to increase the trade according to any sudden extension of the market, where the supply of additional hands is rendered so slow an operation. One very important practice has been introduced into the woollen trade, the employment of women. Whoever considers the narrow field to which female labour is restricted in this country, and the consequences of this restriction, the loss of the produce of so much labour to the community, the destitute situation of so many in that sex, and the moral corruption which the lower orders of them suffer from the hardships of their situation, will regard this as no small improvement. It appears that the number of female weavers at present employed in the woollen trade is to that of male, as two to three. And all of these, or the greater part of them are debarred from employment by the statute of apprenticeship. It is well known that the business of weaving woollen cloth is by no means difficult to learn. A year, or even less, is asserted by all who are acquainted with the business, to be sufficient to acquire a complete proficiency. It is not attempted to be denied that the workmanship of unapprenticed weavers is in every respect as good as that of apprenticed ones; and no merchant or dealer was ever heard to inquire of the manufacturer, whether such a piece of cloth was worked by a man who had served a legal apprenticeship or not? Within a few years past, the manufacture of woollen cloth has greatly increased; and it was necessary to employ a number of unapprenticed workmen, because the number of apprenticed ones was altogether insufficient to supply the demand. While this breach of the law was unchallenged, the manufacturers proceeded without any desire of its repeal. But associations have been formed lately by the apprenticed weavers, to oppose the employment of their unapprenticed rivals, by which the masters are threatened with prosecutions; and on the strength of the facts above stated, they have applied to Parliament for relief from the statute of apprenticeship.

There is a strange regulation, connected with that of apprenticeship, as it concerns the woollen trade, by which the use of more than one loom in one house is prohibited in any place except a market town. Now, by the change in the nature of the woollen manufactory, in consequence of machinery, which renders water and fall necessary, it has been found in most cases convenient to form manufacturing establishments in country places, and in villages. And all the advantages of this arrangement must be lost if the law is not repealed, or allowed to be broken.

The second law, mentioned above as a grievance to woollen clothiers, respects the use of certain machinery in the preparation of cloth. A certain species of mill, known to the manufacturers by the name of the gig-mill, is forbidden by the statute there quoted, to be employed, as injuring the quality of the cloth. This mill, it is now found, may be used, in a manner somewhat different from that in which it was used at the time of passing the statute, not only without injuring the cloth, but to its advantage. Formerly it was employed in the operation called perching and burling, which is performed before the cloth is fulled, when being loose and soft, it might sustain injury from the gig-mill. But now the gig mill is used for the purpose of rowing and mosing, an operation performed after the cloth is fulled or milled, when it is no longer capable of being injured by it.

Cloth dressed by the gig-mill is preferred to that dressed by the hand, both in the home and in the

foreign market. The reason is, that it is softer and mellower, as well as more accurate. The manufacturers in Gloucestershire have gained much of the trade from Wilts, on account of the preference given to cloths dressed by the gig-mill. And it is asserted that three parts in four of the cloth made in places where the gig-mill has not been introduced, are sent to London and other places undressed, where they are afterwards prepared by the gig-mill for the market by the merchant himself. Besides the superior manner in which the cloth is dressed by the use of this machinery, the expence is about one half less. The price of the finer sorts of wool has risen at least 100 per cent. within the last thirty years, and the increase of wages in the clothworking business has not been in a less proportion. But the price of cloth has not risen more than 30 per cent. during the same period, and is at the same time highly improved in quality. A great part of this striking improvement is owing to the introduction of machinery. It is surely, therefore, impolitic that any laws should be allowed to stand in the way of that introduction. And our legislators may safely allow us to purchase our coats prepared after whatever mode the manufacturers and we shall agree upon. It is very desirable, however, that laws should be made, or at least executed, to prevent the mutinous opposition of the workmen to such important abridgements of labour. In many parts of England, as in Wiltshire, the manufacturers have been obliged to abandon in a great measure the use of the gig-mill, on account of the outrages committed by the shearmen to oppose its introduction. This opposition is the more atrocious, as the clothiers have offered to secure all of them employment and ample wages in the different branches of the trade, and to use no machinery while any of them are deprived of work. And it is stated to be the resolution of the shearmen throughout England, Scotland, and Ireland, not to work after the machinery. The necessity of correcting such enormities as these, surely requires no illustration.

(*These Remarks to be continued in a future Number.*)

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2. *An* OBSTACLE TO THE AMBITION OF FRANCE: *or, Thoughts on the expediency of improving the political condition of his Majesty's Irish Roman Catholic subjects. By* Thomas Newenham, *Esq. one of the representatives of the Borough of* Clonmell *in the last Irish Parliament.* 8vo. pp. 41.

The moderation, and good sense, which appear in this little tract, have produced so great an impression on our own minds, that we have been induced to present the substance of it to our readers.

Security, that fundamental article in the felicity of a nation, the author states as depending on four things:—1. A fortunate local situation. 2. An extensive population. 3. The correspondence of its interests with those of other nations; and 4. The political unanimity of its inhabitants. In the first three of these circumstances the author considers the united empire of the British islands as eminently happy, their insular situation being so important a bulwark, their population of 16 millions being fully adequate to all the purposes of defence, and their subjugation by any foreign state being clearly dangerous to the existence of any European powers. But the last of these, political unanimity among the great body of the people, he justly considers as by far the most important of all the requisites to national security, as it is this which which gives the rest their value, and without it they are of little account.

"I think, therefore," says he, "we shall seldom err, if we measure the security of a nation chiefly by the extent and nature of the political unanimity which we observe to prevail amongst its inhabitants. And that when we perceive the measures of any government tending directly to the attainment and perpetuation of this, we are fully warranted in considering that government as having for its primary or paramount objects the power and felicity of the nation over which it presides."

The grand cause of political unanimity, he judges to be a fair and impartial distribution of the rights, immunities, and benefits derived from the constitution of the state. He states, as a fact, what will scarcely be denied to be one, that most men of reflection are loyal in proportion as it is their interest to be so. He concludes from this, that if any class of citizens in a state are placed in a disadvantageous situation with regard to the rest, political unanimity cannot there prevail; and to this purpose he quotes Mr. Burke, who asserts, "that such a state must contain a Bank of discontent, hourly accumulating; and on which every description of seditious persons may draw at pleasure."

The author judiciously however admits, that there is one combination of circumstances which may render this impartial distribution of privileges unwise. When a government is opposed by a hostile faction that nearly balances it in strength, to admit its antagonists to an equal share of power, might be the same thing with altering the constitution of the state. But whenever the excluded party becomes so weak, or so altered in disposition, as to have no power or inclination to hurt, the exclusion ought immediately to cease.

"And there cannot surely," says our intelligent author, "be a more satisfactory evidence of vigilance and sagacity on the part of a statesman, than an early discovery of that precise juncture at which the inestimable advantages flowing from political unanimity, thus insured, may be enjoyed without paralysing the government, or endangering its existence."

It is not denied that the catholic inhabitants of Ireland are placed in a less advantageous situation with regard to political privileges than their fellow-subjects. Neither can it be denied that this is a natural cause of an alienation of their minds from the government under which they live. As little can it be doubted that this alienation is a great evil, and tends strongly to impair the security of this kingdom. If there be no danger, therefore, either from the power or the disposition of the catholics, though admitted to an equal share of privileges with their fellow subjects, our author concludes, that the wisdom of such admission is abundantly evident. And he refutes the allegation of danger by the following arguments.

The Roman Catholics could never attain any influence in the legislature which would lead to dangerous consequences. The Protestants in Ireland are

proprietors of more than seven eighths of the land they enjoy, besides, the exclusive patronage of all the remaining boroughs, and even in the cities in which the right of election is exercised by freemen and freeholders, the interest of the Protestants and Catholics is nearly balanced. It is therefore not probable, that more than ten or a dozen Catholic members could find their way into the House of Commons, though the doors of it were thrown open to them. But even if it should be allowed that Catholics would be returned from all the cities in which they outnumbered the Protestants, it is asserted that not more than fifty would be elected; the ascendancy of whom is surely not greatly to be dreaded in the Imperial Parliament assembled at Westminster.

Whatever danger, therefore, exists on account of the Irish Catholics, arises from their numerical strength. But that is just as great while they are deprived of political privileges, as when they shall obtain them. And surely they have a greater motive to use that strength against the established government now, than they would have when admitted to their full share of all the advantages which it yields.

Their increase of power by admission to places of eminence he considers as of very little consequence; since a protestant king, advised by protestant ministers, would never appoint any Roman Catholics, but those whose principles could be depended upon; and even if they should obtain places in proportion to their numbers in Parliament, which could never be greater than as one to twelve, they must still be perfectly under controul.

But our author asserts farther, that the inclination to produce any improper changes in the state would not be entertained by the Catholics. Whoever considers the present state of society, will hardly suppose that such a handful of men would entertain the hope of prevailing against the superior numbers of their Protestant fellow-citizens; or would be willing to risk the sacrifice of their privileges by entertaining such traiterous purposes. It is well known that indulgent usage produces attachment in spite of the most violent speculative prejudices. Several of King James the Second's Protestant servants stood by him to the last, even in opposition to their Protestant country. Some of the most zealous of his present Majesty's former servants in Ireland were merely nominal Protestants. How can it be supposed, that men who enjoyed an equal share of all the benefits of the social institutions of such a country as Great Britain, would expect to improve their condition by an overthrow of the state on account of religious opinions?

But it is said, that the zeal connected with the Roman Catholic religion, renders it dangerous. Our author thinks that little needs to be offered in reply to this objection. The Roman Catholic religion of the present day, is like most other religions, not very remarkable for zeal. We do not find the Roman Catholics in France and in Germany very troublesome to their neighbours, on account of zeal for their religion. The Roman Catholics have not escaped part of the illumination and liberality which have been acquired by the votaries of other systems. The papal power is virtually extinguished, and the infallibility and supremacy of the Pope are neither believed nor regarded even in Roman Catholic countries. The surest means too of confirming the attachment of men to a religion, is to impose on it any species of persecution.

The desire to get possession of the inheritances of their ancestors is represented as an additional motive to the Irish Catholics to make a bad use of power. To this our author answers by the following propositions: That since the last grand forfeiture the greater part of the landed property has passed through different hands; that many families have changed their religions; that many individuals descended from poor ancestors have become rich, and others from wealthy ones grown poor; that the titles of forfeited estates have in a multitude of cases been irrecoverably lost; that scarce an individual could make out his claim to the forfeited possessions of his ancestors; that though this could be done, the greater part of the present Roman Catholic proprietors would not willingly exchange their present possessions for the supposed ones of their progenitors; that many Catholics hold, under Protestant titles, much better properties than their ancestors possessed; that a general resumption of forfeited properties would be more beneficial to many Protestant than to many Roman Catholic families; and besides all this, that so puerile and mischievous a measure could never be proposed in a rational assembly.

To the objection drawn from the late rebellion, the author replies, that a majority of the instigators of that rebellion *were not Roman Catholics*; and that a majority of the Roman Catholic gentry valiantly stood forth in defence of his Majesty's crown. He adds further his belief, "that it could be discovered, that there was not a single Roman Catholic concerned in the diabolical act of confederacy to which the rebellion may be traced."

The objection drawn from the King's coronation oath, is the last which our author considers. He first refers for an answer to the letter of Burke to Sir Hercules Langrishe. The clause in the oath which refers to this subject is the following:—

"Will you to the utmost of your power maintain the laws of God, the true profession of the Gospel, and the Protestant reformed religion established by law?"

But surely it is not proved to be inconsistent with the maintenance of the laws of God, of the true profession of the Gospel, and of the Protestant reformed religion, to admit the Roman Catholics to a just share of political privileges; these would probably be maintained better afterwards than before. Every indulgence during his Majesty's reign in behalf of the Catholics is in this sense equally a violation of his oath;—the humane succour afforded to the French clergy, the extension of the elective franchise to the Irish Catholics, and the establishment of the Roman Catholic religion in Canada. The second member of the same clause contains the following words:—

"And will you preserve unto the bishops and clergy of this realm, and the churches committed to their charge, all such rights and privileges as by law do or shall appertain unto them?"

It is not intended by admitting the Roman Catholics to the full enjoyment of the privileges of citizens, to injure the rights and privileges of the bishops, clergy, and the churches committed to their care. Nor has that admission any tendency to produce this injury. The original intention of this clause was to prevent the presenting of Roman Catholics to vacant sees, livings, academical professorships, &c. as James the Second had done; and has no reference to political privileges. If the coronation oath binds the King to withhold any of the rights of citizens from Roman Catholics, it binds him to withhold them all, and to carry persecution against them to utter extermination.

NOTICES.

France.—In our 11th Number we took notice of the formation of a Society in Paris, denominated the *Statistical Society*, whose object is to advance Statistical knowledge. They carefully collect and compare the accounts of the different departments drawn up by order of government, add new observations and facts, and consign the result of their labours, either to the public papers, or to memoirs intended to be submitted to the inspection of the minister of the interior. The first sitting of the society took place on the 16th Ventose, when six committees for the prosecution of the different departments of the study, each committee consisting of seven members, were formed, and the departments arranged in the following manner:—

1. Committee of physical and medical topography.
2. Committee of statistical meteorology and natural history.
3. Committee of population, and public assistance.
4. Committee of agriculture and rural economy.
5. Committee of industry, of commerce, and of public works.
6. Committee of public instruction and the fine arts.

We have mentioned already the fine appendage, intended to be added by this society to their other labours; a public lecture, for the purpose of diffusing the knowledge of the important subject they have undertaken to cultivate.

Germany.—Two instances of religious toleration are talked of just now with great approbation in this country. The Landgrave of Hesse-Darmstadt, in whose dominions the Catholics have not hitherto enjoyed the free exercise of their religion, has erected at his own expence a catholic chapel at the place of his residence. On the other hand, the catholic inhabitants of the city of Fulda, have established a protestant church, and provide the expence necessary for its maintenance, and that of the officiating clergyman, out of the produce of their common revenue.

Bavaria.—A decree of the Elector was lately published, which commands all fathers, mothers, tutors, &c. to send regularly to the public schools their children or pupils, &c. from the age of six to that of twelve, and charges the inspectors of schools, and ministers of religion, to superintend the execution of this ordinance. The same decree imposes a powerful motive to obedience, by ordaining that no inhabitant of the Bavarian states shall be capable of marrying, or of being admitted into a corporation of tradesmen, who has not yielded obedience to this statute.

This prince, too, has of late been busily occupied with the augmentation of his army; and the total number of his troops amounts at present to 40,000 men.

Russia.—An ukase or edict has been published, following up some previous ones of the same kind, which confers power on all proprietors of land to emancipate their peasants, and enable them to acquire property, after the example of Count Romanzow.

The Marquis de Maymon, who some years since published at Hamburgh a respectable French Journal, intituled, "*Le Censeur*," has lately been appointed by the Emperor of Russia, Secretary for foreign correspondence at the department of public instruction, with a salary of 1200 rubles *per annum*.

TO CORRESPONDENTS.

*** *We entirely agree with a* Man of Feeling, *that the practice of duelling is inconsistent both with our religion and with the principles of social order, and that the verdict of the Jury, with regard to a late instance, was not a little strange, but we cannot think with him, that any verdict which they could have given, would have produced a beneficial effect of any magnitude. The true corrective of this enormity is what our Correspondent judiciously points out, a change in the sentiments of the people conspiring to despise, instead of admire the transaction. And if he can suggest any means to accelerate this desirable revolution, which we have no doubt is approaching, it will give us much pleasure to insert his observations.*

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LADY MARY WORTLEY MONTAGU.

MR. PHILLIPS respectfully informs the Nobility, and the Public, that the entire LETTERS and other WORKS of the Right Honourable LADY MARY WORTLEY MONTAGU, now first published, by permission, from the original manuscripts in possession of the Most Noble the MARQUIS OF BUTE, will certainly make their appearance before THE KING'S BIRTH-DAY.

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No. 71, St. Paul's Church-yard, May 2, 1803.

This Day were Published, Price 1s. 6d. the Second Edition, enlarged by communications from various Correspondents, of

OBSERVATIONS on the EPIDEMIC CATARRHAL FEVER, or INFLUENZA; to which are subjoined, Historical Abstracts concerning the Catarrhal Epidemics of 1762, 1775, and 1782.

By RICHARD PEARSON, M. D.

Printed by C. and R. Baldwin of New Bridge-street, Black Friars, and sold by them, and by L. B. Seeley, of Ave-Maria-lane, and by J. Callow, of Crown-court, Soho.

NUMBER 20.] THURSDAY, MAY 19, 1803.

PHYSICS.

1. *Royal Institution of Great-Britain.*

AS the Royal Institution promises to become a great national ornament and advantage, from its increasing patronage, the importance of its pursuits, and the great abilities of its Professors, we think a brief account of its past labours, and of its future plans, will prove acceptable to our readers.

In the volume of the Journals of the Institution, printed under the inspection of Count Rumford, Dr. Young, and Mr. Davy, and published at the close of the last year, we find many details of the progress, management, and economy of the establishment. By the Report of February 10, 1800, the number of subscribers was 901, among whom 97 were ladies. By the same report we find that a Committee of natural philosophy and chemistry had been appointed, as a permanent council of reference and consultation; 14 other Committees had also been named for various purposes. Attention had been given to the various processes of making bread, to the preparation of cheap soups for the poor, to the improvement of cottages, and cottage fire-places, stoves, household furniture, to the effect of cookery upon the food of cattle, to the better construction of lime-kilns, the composition of mortar and cement, the making of fire cakes for fuel, by mixing clay with coal-dust and cinders, &c. &c.

In another report by Count Rumford, on the 25th May 1801, the proprietors amounted to 325, the life subscribers to 268, the annual subscribers to 527, in the whole 1120. The Count justly remarked, that the establishment was becoming *extremely interesting and useful, and that it would long remain an ornament to the metropolis, and a proud monument of the energy, wealth, and liberality of the private individuals of the British Nation.* The same report contains an account of the spacious and complete laboratory, of the workshop, of the kitchen, of the *experimental dinners*, of the conversation and reading-rooms, of the printing-office, &c. 24 Domestic, 15 French, 6 German, and 4 American periodical works were regularly received, together with 9 principal London newspapers—one Irish, and one Scotch.

In the second report of that indefatigable philosopher Count Rumford, on the 26th April, 1802, we are informed of all the farther improvements which the establishment received during the interval of the two preceding statements. The new lecture room had been finished, and was acknowledged to be one of the most beautiful and most convenient scientific theatres in Europe. It was so favourable to the propagation of sound, that, though it was sufficiently capacious to contain 900 persons, a whisper might be distinctly heard from one extremity of it to the other, and no echo was ever perceived in it. Adjoining to the theatre was the apparatus room. Although the prices of proprietors' shares, and of life and annual subscriptions had been considerably raised, the list of proprietors and subscribers had, during the preceding ten months, been augmented by no less than 154 new names. "The Royal Institution," concluded the reporter, "may be considered as finished and firmly established. That it may long continue to flourish is no doubt the ardent wish of those who are connected with it, and of all those also who are acquainted with the principles on which it is founded."

Had the volume been undertaken with an historical view, we could have wished it had been preceded by an account of its original plan, its chief founders and patrons, its charter of incorporation, together with its bye-laws and regulations. This deficiency will we hope be supplied in some subsequent volume. In the mean time the public will have abundant reason to be satisfied with the important scientific information contained in the one before us. The volume is closed by a catalogue of the library, as it stood in December last: it consisted then of 421 sets of books, of which no less than 200 have been presented by the liberality of Count Rumford alone.

Besides the volume of the Journals, we have seen the syllabuses of the two lectures delivered by Dr. Young, and Mr. Davy. "In order to adapt," says Dr. Young, in his advertisement, "the delivery of these lectures as much as possible to the convenience of different persons who may be disposed to attend them, they will be divided into three parts of nearly equal magnitude, and in a great measure independent of each other. Two parts will be delivered in succession on Mondays and Wednesdays, at two o'clock, and the third, on Friday evenings, at eight: and, in future winters, each part will be taken in turn for the evening *lecture*." The first part of his course, accordingly, treats on mechanics; the second, on hydrodynamics; and the third, on physics. In Mr. Davy's syllabus, a similar method and distribution has been adopted: the first part of it exhibits the chemistry of ponderable substances; the second, the chemistry of imponderable substances; and the third, the chemistry of arts.

The method of these syllabuses is synthetic, and such as the professors thought the most suitable to a general and popular course of instruction.

The lectures already delivered, from the 26th of the last January to the 18th of the present May, amount to about 90. They have been generally attended by a numerous and sometimes an overflowing audience. Dr. Young's lectures on harmonics and optics were remarkable for novelty and originality of information; those on theoretical and practical astronomy excelled for method and perspicuity; and that which was delivered on the 31st January, concerning the composition of motion and the centre of inertia, was considered as a most finished specimen of analysis and

synthesis. Mr. Davy's most interesting and instructive lectures were those on Galvanism and its properties. From the order, perspicuity, and accuracy, displayed in these lectures, which were delivered with uncommon eloquence, he proved not only to be completely master of the subject, but to rank with the most eminent of his cotemporaries; and evinced those eminent powers by which men of genius are enabled to connect the present with future generations.

If, from the preceding details, our readers are already enabled to form an advantageous idea of the Royal Institution, and to feel a proper degree of satisfaction for the benefit it confers upon arts and sciences, they will, no doubt, be agreeably surprised when they are farther informed that within the last two months it has received an additional improvement, and greater perhaps than any of those which have been hitherto detailed.—A library and collection of books of reference is erecting.

It appears that the formation of such a collection by subscription, had recently been in the contemplation of an association of gentlemen in another place, and that the arguments in its favour had originated with a proprietor of the Royal Institution. He observed, that "to determine the past and the present state of the population, the manufactures, the commerce, the quantities and price of all articles of national produce, the local prosperity of counties and towns, the capital and revenues of the country, the history and modifications of taxes, regulations, laws, and systematical arrangements, the nature and operations of the administration of the government in domestic and foreign relations—these and a most extensive variety of departments of research will offer themselves to every gentleman who is desirous of performing the high duties of his station with intelligence and effect. But it appeared scarcely credible when it was affirmed that in this great and powerful nation, raised and supported as it had been by its superior knowledge and conduct in these respects, there was no library in which this invaluable body of knowledge is to be found—where the laws of the country, the journals of parliament, the registers of the times, the best histories, maps, charts, collections of treatises are preserved..... It would be in vain to inquire for an accessible repository, where the reports on the woods and forests—on the coinage—on the bank—on the public revenue—or even on the trade and intercourse of the British empire, are kept for consultation."

Whilst this project, as we observed, was in contemplation in another place, a report from a select committee was addressed to the managers and visitors of the Royal Institution, on the 7th of March last, for the supply and completion of the library belonging to the establishment. In the same report, an additional collection of books for the reference of scientific men, was recommended as one of the measures most likely to give permanency and stability to the Institution. No sooner had this project been adopted, than a proposal was submitted to a Committee of the managers and visitors, on the 21st of the same month, for the collection of books of reference on a more extensive plan. And as this new branch of expenditure, together with the immediate completion of the library, would have lessened the funds of the Institution, several proprietors, who had before largely contributed to the library in its infant state, again testified their zeal by subscribing between three and four thousand pounds.

The following are the principal bye-laws and regulations for the library:—The collection of books of reference shall be open four days in the week, from twelve to four o'clock, for the proprietors and subscribers—as soon as the library and collection are completed and arranged, a catalogue thereof shall be printed and published—a book shall be left in the reading rooms, for the insertion of the title of any work to be recommended to the consideration of the committee as an object of purchase—the small lecture-room (which is 14 feet high) shall be fitted up for the collection, with a gallery, at the height of 7 feet from the floor; so that every book may be within reach, either from the floor of the room, or from that of the gallery.—In case more place is wanted, the floor over the room shall be perforated, and a third gallery of books shall be formed, with a sky-light to be introduced from above; and exertions shall be made that the collection may be opened at Christmas next.

The following classes of books shall be entered on the minutes for the consideration of the subscribers:

1. British history, biography, antiquities, and topography.
2. Parliamentary history, debates, and reports.
3. Political economy, and finance.
4. Military and naval affairs.
5. Modern universal history.
6. Ancient universal history.
7. Geography, chronology, voyages, and travels.
8. Canon, civil, statute, and common law.
9. Arts, manufactures, and trade.
10. Natural history, agriculture, and gardening.
11. Physic, surgery, and midwifery.
12. Chemistry.
13. Mathematics, astronomy, and other sciences.
14. Architecture, sculpture, painting, and music.
15. Natural philosophy.
16. Theology, and ecclesiastical history.
17. Greek and Roman classics.
18. Modern English, and foreign classics.
19. Grammars, dictionaries, criticism and bibliography.
20. Miscellaneous.

Such is a brief statement of the past labours and the immediate plans of this noble Institution; and we doubt not it will receive such an accession of liberal patronage, as will render its permanence as advantageous to future generations, as its establishment is honourable to the present. F. D.

2. *Account of a new Method of Painting Apartments, By* Dr. F. Carbonel, *of Barcelona.**

It is well known that the different substances employed as paints, are chiefly metallic oxides, or earths, or mixtures of both, and that it is necessary to form them into a paste with some adhesive liquid, in order to cause them to adhere firmly to the sub-

* Ann. de Chim. 45, 246, and Jour. de Phys. 56, 220.

stance on which they are applied. Various liquids are used for that purpose; but by far the most usual are the drying oils and solutions of glue. The employment of the first constitutes what is called painting in oil, the employment of the second constitutes painting in size. Oil paint is some time in drying, and even after it is dry, a disagreeable smell remains, which no remedy hitherto applied has been able to remove, except time. Size paint indeed dries quickly, and leaves no bad smell; but it is destitute of lustre, and is liable to be destroyed by damp or wet.

Some time ago milk was proposed as a substitute for both oil and size. It was affirmed that milk painting possessed all the advantages of oil and size united, while it wanted their disadvantages. It was not liable to be destroyed by wet, it possessed the lustre of oil paint, and dried as rapidly as size. Whether milk as a vehicle of paint, has had a fair trial in Britain, we cannot pretend to say. We have seen it tried on a small scale, and with considerable success.

Mr. Carbonel has lately published another vehicle, which promises fair to give complete satisfaction. This is the *serum* of blood; a greenish yellow liquid, containing a very considerable portion of albumen, to which it obviously owes its utility as an ingredient in paint. The resemblance between the albumen of the blood and the curdy part of milk is too striking to escape any person who has had an opportunity of seeing both. They are not, however, the same in every respect. For curd bears almost as close an analogy to gluten and fibrina, as it does to albumen. In one property albumen and curd agree; they are soluble in water at first, but after being once dried, they refuse to dissolve any more. This is the property which renders milk and serum so useful in painting.

The blood drawn from a bullock is to be allowed to remain at rest for an hour or two, till it coagulates and separates into the *clot* and serum or liquid part. This part is then cautiously decanted off into a clean vessel. As it is extremely apt to run into putridity, it must be used the same day that it is drawn from the animal, or the next day at farthest.

Mr. Carbonel mixes it with powdered quicklime, which produces a bluish white paint, which was what he employed. The quicklime must be reduced to an impalpable powder, partly by sprinkling it with a little water, and partly by trituration. It must be kept in close vessels till it is used, in order to prevent the access of carbonic acid and moisture, which would render it unfit for use.

The quicklime thus prepared is to be added to the serum, till the mixture acquires such a consistency, that it can be easily spread with a brush upon the walls in the usual way. As this consistency very soon increases, it is necessary either to prepare the paint only in small quantities at a time, or to have a little spare serum at hand, to dilute it occasionally. It ought to be spread upon the walls as quickly as possible. Several coats may be given, taking care that the first be dry before a second is applied.

This paint cannot be applied over oil paint, as it occasions cracks in it. It answers remarkably well over plaster. It may be applied over damp walls, without any risk of its scaling off, and if it be afterwards covered with a coating of plaster and glue, the whole may be painted in oil in the usual way.

According to Carbonel, neither the oxides of lead, copper, nor arsenic can be mixed with this paint without undergoing almost a complete change in colour. This is unfortunate, as these oxides constitute the base of some of our most common and beautiful paints. But the oxide of cobalt is not altered by it, and might therefore be employed were not its high price an unfortunate obstruction. All the different native earthy paints and ochres, whether red, green, black, or yellow, may likewise be employed without any risk of a change of colour. But the addition of these bodies weakens the solidity of the paint. Carbonel, however, has ascertained that the addition of a little white of egg in these cases removes the defect.

The ancients employed blood in order to increase the solidity and durability of their mortar, and albumen and quicklime have been long known as excellent cements for stone ware, and stones of all kinds.

3. *Method of extracting Soda from Minerals.*

The improvements which the art of analysing minerals has received within these few years are very numerous, and the consequence has been the discovery of a great variety of substances in the mineral kingdom which were formerly either altogether unknown, or considered as belonging exclusively to animals or vegetables. Of these perhaps there are none of more importance than the detection of the two fixed alkalies in a variety of stones. Potass was first discovered in the Lepidolite by Klaproth, and the methods employed by that celebrated analyst, and by Vauquelin, his no less celebrated rival, are known to every chemist. But the discovery of Soda is of later date, though it seems to exist in much greater abundance than the other alkali in the mineral kingdom; as there are many mountains known of considerable size, of which it constitutes a 20th, or even a 10th part. The discovery of soda in basalt and granstein was made by Dr. Kennedy, of Edinburgh, whose analyses rival in precision and ingenuity any that have hitherto appeared. About a year after it was discovered by Klaproth in Shistose porphyry, another rock similar to those which had been analysed by Kennedy; as they all belong to that class denominated by Werner, rocks of the trap formation.

As the method of detecting and separating soda is not yet familiar to chemists, and as Klaproth's dissertations have not yet appeared in our language, we think it necessary to publish a short sketch of the processes.

Dr. Kennedy's method is remarkable for its easy application and its ingenuity. It consists in treating the mineral with sulphuric acid, evaporating to dryness, and then heating to redness in a crucible. By this strong heat the earthy and metallic sulphats are decomposed, and the red hot acid disengaged acts with great energy on the undecomposed part of the stone, and unites with its soda. By lixiviation and evaporation the sulphat of soda is obtained, and the soda separated and estimated by the usual methods.

But as Dr. Kennedy's dissertation has been published in all the journals, and as every practical chemist can easily have recourse to the original, it is unnecessary to be more particular here.

Klaproth's method is more expensive, but it has the advantage of procuring a complete solution of the mineral, and thereby ensures the separation of the whole of the soda. Besides, its application is not limited to particular species of stones. It is as follows:

One hundred parts of Shistose porphyry were mixed with 400 parts of nitrat of barytes, and reduced to a fine powder. The mixture was put into a porcelain crucible and exposed for some time to a moderate heat, and afterwards to a red heat. It melted into a thick mass which frothed considerably. After the frothing had ceased, the fire was increased, but on perceiving white vapours rise from the mixture, the vessel was withdrawn from the fire.

On cooling, a spongy brittle mass was obtained of a blue colour, which dissolved completely in muriatic acid. The solution was limpid, and of a yellow colour. It was poured into a porcelain capsule and placed in a sand bath. Sulphuric acid was then added, not only till the whole of the barytes precipitated, but till there was an excess sensible to the taste after the complete disengagement of the muriatic acid.

The whole was evaporated to dryness, and then mixed with water. The sulphat of barytes and silica remained undissolved, and were separated by filtration. The solution was then saturated with ammonia. The precipitate which formed was also separated by filtration, and the liquid thus freed from all its earthy and metallic ingredients was evaporated to dryness, and the saline mass heated in a porcelain crucible, till the whole of the sulphat of ammonia was disengaged. The residue, by solution in water and evaporation, yielded crystals of sulphat of soda. These crystals were dissolved in water, and decomposed by a solution of acetite of barytes. The sulphat of barytes was separated by filtration. The liquid was evaporated to dryness, and the acetite of soda obtained, heated to redness in a platinum crucible. The residue dissolved and filtered, yielded by evaporation 14 parts of carbonat of soda, which are equivalent to $8\frac{1}{10}$ of pure soda.

3. *Analysis of the Propolis or Mastic of Bees. By* Vauquelin.

When bees are newly placed in a hive, their first business is to collect a reddish brown substance with which they line the inside of their hive. With this matter they cover over all foreign bodies which are too heavy for them to remove to the outside. Hence the name *propolis* by which it is distinguished, as they begin their labours with this substance *before* they build their *city*.

The propolis adheres so strongly to the legs of the bee which has collected it, that the assistance of other bees is necessary in order to separate it. They carry it off with their mouths and apply it to the hive. It is at first very soft and ductile, but it gradually hardens, and at last becomes very solid.

It is of a blackish brown colour, and in thin plates is semi-transparent. By the heat of the fingers it is gradually softened, and becomes ductile like wax, but it is more ropy and tenacious. It has no taste, but its odour is aromatic, resembling that of the balsam of Peru.

One hundred parts of it were digested for 24 hours in very strong alcohol. The alcohol, which had acquired a deep red colour, was then filtered off, fresh spirit was added and allowed to digest cold for 24 hours more. It acquired but very little colour. After this second dose of alcohol was filtered off, a third dose was poured upon the residue, boiled with it for a few minutes, and filtered while hot. This process was repeated with six different portions of alcohol. The residue was then treated with boiling sulphuric ether. What remained after these processes weighed 14 parts, and consisted of fat matters retained from fragments of bees, of vegetable substances, and grains of sand.

The whole of the alcohol was mixed together, and passed through a fine strainer to separate a substance which had precipitated as the liquid cooled. This matter after being dried and melted weighed 14 parts. It possessed the properties of wax.

The alcohol was then distilled and reduced to three fourths of its quantity. The liquid that came over had an aromatic odour; but it contained no acid, and was not rendered turbid by water; a proof that it contained no sensible quantity of resin.

What remained in the retort was of a deeper colour. When diluted with water a precipitate appeared which was ropy like the resins obtained by the same process. By mixing the liquid with a sufficient quantity of water, and boiling it, a mass was obtained weighing 57 parts, which possessed all the properties of resin. It was of a reddish brown colour, semi-transparent, and very brittle. It melted readily on the fire, and by distillation yielded a volatile oil, white, and having a very pleasant smell. What remained in the retort had acquired a deeper colour and was become harder. It was soluble in fixed and volatile oils. This resin is very similar to balsam of Peru, of which it contains the acid.

The mixture of water and alcohol from which this resin had been separated, contained an acid.

Thus the propolis of bees is composed of the following ingredients:—

Resin	57
Wax	14
Extraneous bodies	14
Loss, acid, and aroma	15
	100

NOTICES.

Society for Experimental Agriculture in the County of Durham.—This is a project which receives our very highest approbation; and we hope that similar associations, the example being now set, will quickly be universal in the country.

A number of individuals, fond of Agriculture, have agreed to unite themselves into a society, for the purpose of devising, and making new experiments for the improvement of agriculture. The objects of the society, as stated in a printed account of it, which the members have published, are the following:—

First, To examine, by experiments, the different kinds and merits of grass, seeds, and grain; to investigate their

habits, and endeavour to ascertain what soils are best adapted to each kind; and to devise means to obtain such seeds, &c. pure.

Second, To attend carefully to the rearing of fences, draining of land, and the best and most expeditious way of cleaning and working different soils.

Third, To examine the nature of different manures, and ascertain the best mode of applying them.

Fourth, To find what stock is best calculated for certain situations, to compare the relative quantity of food consumed by different kinds of stock, what food is most congenial, &c.

As accuracy, the account adds, should be the leading principle of the Society, its experiments cannot, of course, be numerous; but should similar Societies be formed, and enter into a correspondence with each other, the experiments might be multiplied in a great degree, and accuracy still retained.

We are of opinion that some improvement might be suggested on the system of rules which the Society has drawn up for regulating its proceedings. But as the idea of so admirable an institution could not have originated except amongst a number of enlightened men, we have no doubt, that experience, when they begin to act, will quickly suggest to them the plans most conducive to the noble end they have in view. We shall be happy to communicate their improvements and proceedings to the public; and hope they will inspire a general desire of imitation.

A course of Lectures, explaining the application of principles of Chemistry to the several operations in Agriculture, has been prepared by Mr. Davy, of the Royal Institution, and the first or introductory Lecture was on Tuesday last read before the Board, at their house in Saville-street.

We cannot but regret that the audience is confined to the gentlemen of the Board of Agriculture. So important a subject, treated by so able a Professor, ought to have been converted into a universal benefit.

Mr. William Gregor has lately detected titanium in basalt, and has given reasons for believing that the metal is much more common than has been supposed.

Mr. Dalton has announced his opinion that all liquids follow the same law of expansion by heat, and that the expansion is proportional to the quantity of heat.

Dr. Mitchill of New York has published a dissection of the fœtus of the shark, from which it appears that this species of animal is intermediate between the oviparous and viviparous classes. The young are found in the uterus connected not to the mother but to ova.

Saturn's ring will disappear in the middle of June, and as the planet, at that time, sets some hours after the sun, the phenomenon may be observed.

Mr. Tilloch has announced in the Philosophical Magazine for April, a new metal sold by Mr. Forster, No. 26, Gerard-street, Soho, under the name of *Palladium*, or *new silver*. It dissolves in nitric acid, solution dark red, and is precipitated in the metallic state by sulphat of iron. By evaporating the acid solution, a red oxide is obtained soluble in muriatic and other acids. It is precipitated from acids by all metals, except gold, platinum, and silver. Sp. gr. 11.3 to 11.8. A moderate heat tarnishes it, but in a strong heat it recovers its lustre, very difficultly fusible; but if touched with sulphur it flows as readily as zinc.

It is said that an improved lamp, the invention of Mr. Paul, will soon be employed in lighting the streets of this city.

Some late travellers affirm that inoculation is used with success in Africa, to exempt persons from the infection of the venereal disease.

Lord Stanhope has been lately employed in improving the Stereotype mode of Printing, and it is said that his Lordship has brought it to a state in every respect superior to that at present practised in France.

From Girord's dissertation on the Nilometer, we learn that Eratosthenes' measurement of the earth was very exact

A Map of Egypt has lately been engraven in France, which occupies 50 sheets.

The following notice, bearing the name of Lalande, appeared in a late French Journal.

"For a long time astronomers have suspected that there was some error in the measurement of a degree of the earth made in Lapland in 1736, by Maupertuis, Lemonnier, Outier, and Celsius; because that degree was larger than it ought to be, according to all other measurements. Melanderhielon has procured a repetition of that measurement. He writes to me that M. Svanberg, and three other Swedish astronomers, have found the degree of 57,209 toises by 66 seconds 20 minutes of latitude, which makes 196 toises less than the measurement of the Frenchmen. This agrees better with other comparisons, and represents the figure of the earth as less irregular than it was thought according to the degree of the north.

M. Mechain set out on the 26th of April for Spain, where he is to measure a triangle of 98,000 toises, terminating at the Baleares islands, and which will complete the grand and important measurement of the meridian, which Messrs. Mechain and Delambre were engaged in some years ago. He is accompanied by Mess. Le Chevalier, Dezauche, and Mechain the son. This measurement is very difficult, but no one is more capable than Mechain of surmounting these difficulties, and we shall have the 45th degree in the middle of the entire are measured by Frenchmen."

The formation of the "*Société de Statistique*," at Paris, mentioned in the eleventh and nineteenth Numbers of the Literary Journal, has induced the celebrated astronomer *Lalande* to publish the following notice in several French newspapers.—"I perceive with great pleasure, that a beginning is made in France to study Statistics. Government patronizes that study, a Society has been formed to promote it, and a Statistical Journal is published for the same purpose.* Several years ago I complained of the neglect of that important branch of political Science. In the '*Annuaire*' of the year 8, I published a list of books which treat of that subject; but most of them are German. I think it right to remind the public of that list, that it may not be forgotten, that in order to acquire correct statistical information, it is necessary to know German. And indeed this is the case with Sciences in general. I should know but little of astronomy, had I not been constantly connected with the German astronomers."

The central Committee of Vaccination in France have at last presented an account of the labours in which they have been engaged for two years. They have received a very complimentary letter from Chaptal, the minister of the interior, who has begged five hundred copies of their account, which he intends to distribute in the departments.

In the Sitting of the Academy of Sciences at Berlin of the 18th January last, M. Klaproth read a memoir "*On meteorological, stony, and ferruginous Bodies fallen from the Atmosphere*," of which, in addition to what we have observed on that subject in three preceding Numbers of the Literary Journal, we shall lay a brief account before our readers. He sets out by observing, that the fall of stony and ferruginous bodies from the atmosphere, being a phenomenon which differs from all known meteors, we are not to wonder at the fact itself having been called in question; the truth of which, however, is now placed beyond the reach of doubt. He then mentions a variety of experiments he has made with meteorological productions fallen from

* Annales de Statistiques, published by *Ballois*, Secretary to the Statistical Society.

the atmosphere, and in particular with stones which fell near Siena, the 16th June 1794, and a mass of iron weighing 71 pounds, fallen near Agram, the 26th May 1751, and compares the result of these experiments with the conclusions drawn by Mr. Howard, as mentioned in our eighth Number. All meteorological productions fallen from the atmosphere consist, according to Klaproth's observations, either in masses of solid iron, or stony bodies interspersed with ferruginous particles. The iron is in all of them of the same quality, ductile, uncommonly tough, and mixed with nickel; they always contain magnesia, nickel, and oxide of iron. In his opinion there cannot remain a doubt, that these bodies are fragments of *fire-balls* exploded and burst within the sphere of the earth's action.

Doctor Tromsdorf, professor of chemistry at Erfurt, has lately published a brief notice, that one of his friends in Germany has discovered a *new metal*, combined with sulphur, of which he promises to give a full account in an early Number of his Chemical Journal.

LITERATURE.

1. Royal Academy—*Remarks on its Exhibition, concluded.*

LANDSCAPES.

Joseph Mallord William Turner, R. A.—Every thing worthy of criticism on Landscape, in the present Exhibition, is comprehended in the works of this artist; the English *Salvator Rosa*.

The View of *Mont Blanc*, N° 24, is grand and sublime in the conception, and exhibits Nature with a bold and daring hand.

The *Festival, on the opening of the Vintage at Macon*, N° 110, is a composition of rural simplicity, volatile gaiety, with some circumstances of Gallic flimsiness. The Chiaroscuro here is not so joyous as the subject requires: but the composition and arrangements are extremely judicious; the numerous figures charmingly grouped; and the business of the scene well expressed.

Calais Pier, during the embarkation of French Poissards, and the arrival of an English Packet, N° 146; is a landscape of great merit; though perhaps not wholly destitute of nationality. The artist applies the vulgar lines of nature to the French Poissards with prodigious effect. What a power this talent must give him, when the combinations of nature, or the force of characters require it, on the principles of terror!

The *Chateaux de St. Michael* 237, *St. Huges denouncing vengeance on the Shepherd*, 384; *A Glacier, and the Source of the Arveron*, 396.—The compositions are simple and grand; the subjects chosen with judgment, whether elevated and extensive, or confined and homely; the Chiaroscuro is generally enchanting; and though there are faults, and perhaps negligences, the pictures on the whole are by much the most attracting of any in the Exhibition to the cultivated eye, and most enthralling to a just sensibility.

Mr. Westall, *Mr. de Loutherbourg*, &c. &c. have several drawings and landscapes of merit; but not above their usual and known standards; and not requiring a place in a summary so short as the present.

SCULPTURE.—The death of the late *Mr. Bacon* is a great injury to this branch of the arts. He seemed to have possessed the ambition to imitate Michael Angelo, by successful efforts to express in marble the character of flesh.

Nollekens, *Banks*, and the younger *Bacons*, have several figures, busts, &c. but not of distinguished merit.

Mrs. Damer has given a head of *Charles Fox*, which has the characteristic bluffy heaviness of the original.

Mr. Fox has the weakness of a man of greater abilities, the late *Mr. Dunning*, that of thinking much of his person. Madame Bonaparte was extremely solicitous to learn the peculiarities of this weakness, when he was expected at the Consular Court. And as it was *then* a determination of that court highly to distinguish all opponents of the English government, this information was acted upon; for when Mr. Fox was led into the library of the Consul, he found his own image as its *Apollo;* and when he visited the apartments of Madame Bonaparte, he had again to contemplate his own bust, as the *Adonis* of her toilette.

English sculpture, if we except such unmeaning busts, is confined to sepulchral monuments; and its history is nearly comprized in that of Westminster-abbey. Even there Henry Seventh's chapel, the royal burying-place, has rendered royal monuments unnecessary, and diminished the province of sculpture.

English artists have lately been successful in the composition of monuments; but those in the best repute among them, have much to learn in the great requisites of unity, truth, and expression.

2. *Travels in Turkey, Asia-Minor, and Syria, &c. &c. By* Wm. Wittman, M. D. 4*to*.

The press has lately so teemed with accounts of Egypt, and that part of Asia which has been the scene of so much glory to our countrymen, that the work before us might almost be deemed superfluous, did it not take a view of the subject in a new light; for besides leading us through regions which must be particularly interesting as the theatre of sacred and classic history, it makes us acquainted with the interior management and discipline of the Turkish armies, and enables us to discover those causes which, in little more than a century, have degraded the Ottoman power, from being in some measure the dread of all Western Europe, to the humiliating situation which it now holds, unable to govern its own dependencies, or resist with energy any foreign attack.

How is it possible that an army can be formidable to any power, except that which employs it, whose want of discipline and courage is such as is related in the following extract?—

"A Turkish camp is lighted up at night by a kind of large lanterns, formed of iron hoops, and fastened upon long poles. Several of these lights, in which rags impregnated with grease, oil, or a resinous substance, are burned, are placed in the front of the tent of each of the Pachas. In the disposition of the centinels, as well as in the distribution of the tents, and, in general, in every essential arrangement in which security ought to be studied, the Turks are so extremely negligent and inattentive, as to be constantly exposed to a surprise, more particularly in the night-time. In such a case, the panic and alarm produced cannot fail to throw every part of the camp into the utmost confusion, since it is impossible to rally, unite, and form a whole,

where neither order nor method has been studied in the distribution of the parts. There is nothing, indeed, to obstruct the progress of an enemy who should attempt to penetrate by night, with cautious and wary steps, into the camp, and who, by cutting the cords of the tents, would contrive to produce a fatal embarrassment among the troops within. Whether the slaughter which would ensue should be more or less terrible, the ultimate effect of the abandonment of the camp would be the same; and the equipage and artillery would become a sure prey to the assailants. The dreadful massacre which occurred on the 17th of September, 1709, arose from the unprepared state of fourteen thousand Turks encamped, and the very feeble resistance they were in consequence enabled to make. Instead of defending themselves, the greater part of them crept under the tents, where they were put to death by the bayonet, without imploring the mercy of their vanquishers. During the late contest in Egypt an equally calamitous scene was witnessed at Aboukir, where many thousands of the Turks who had been routed in their encampment, in attempting a precipitate escape, drowned themselves in the sea."

For the sake of general humanity we are sorry to find, in chap. viii, that the dreadful charges brought against the French, for their cruel assassination of their Turkish prisoners are confirmed by the investigation of Dr. Wittman.

We are sorry to be obliged to add to the account of what the author has done our observations on what he has not done. Of the situation of the most striking places in the Holy Land his account is very accurate, and very interesting. But it is hardly to be credited that any man of even common classical acquirements, as we must suppose Dr. Wittman to be, could be so little partial to the "Tale of Troy divine," as to give an account of two visits to the Troad, in passages not much more enlarged than the notice of them in the contents prefixed to the chapters. In the contents of chap. v, we are led to expect a "description of the plain of Troy, and the tombs of Achilles Patroclus, and Ajax," which description is given at full length in these words:—

"We next visited the tumuli, or barrows, which tradition has described as the tombs of Achilles and Patroclus, At some distance from them we saw another barrow which is styled the tomb of Ajax.

"The plain of Troy, over which we rode, is of very considerable extent, being about twelve miles in length, and from five to six in breadth. It is fertile, and in a good state of cultivation. A great part of the land is laid out in pasturage, on which numerous herds of cattle browze. The rivers Scamander and Simoeis run meandering through the plain; and near to their confluence stands the village of Bourna Bashi, on the site, as is supposed, of the ancient Ilium. At an inconsiderable distance from this village are to be seen the vestiges of an ancient temple dedicated to Apollo. Several other small villages are interspersed. The Scamander being at present but scantily supplied with water, a part of its bed affords herbage for cattle."

And again, by the contents of chap. xx, we are taught to expect some further account of the "banks of the Scamander, plain of Troy, and tomb of Patroclus." Which expectation is thus satisfied in the chapter itself. "We landed at Coombcally to purchase the articles of which we stood in need, and having amused ourselves by a promenade [why not walk?] on the banks of the celebrated Scamander, visited once again the plain of Troy, and having mounted to the tomb of Patroclus, returned to the vessel."

Dr. Wittman is also inclined to give his readers a little too much credit for their knowledge of Eastern terms, for in page 48, we are informed that grapes were sold at three and four *paras the oke*, but are not told what an *oke* and a *para* are; and in page 192, we learn that the daily consumption of barley in the Turkish camp, amounted to six hundred *kiloes*, each containing twenty-two *okes*, to which indeed is subjoined, "or to speak with more precision to the English reader, fifteen tons;" instead of *more precision to*, read, *to make myself at all understood by*. Precision required that the meaning of the kiloe, and the quantum of the oke should have been given.

Many coloured engravings are added of the different civil and military orders among the Turks, which are neatly executed.

The plan of these travels is such as afforded the author means of rendering his work more generally interesting, than any which has lately appeared; but unfortunately the adventures of the military mission are too much the predominant feature of the work, and these, when taken into consideration with the struggles and the triumphs of the British forces, which are the groundwork of the other contemporary descriptions of Egypt and Asia, sink to nothing in the comparison.

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3. *Essai sur l'histoire générale des Sciences, pendant la Revolution Française. Par* J. B. Biot. A Paris, 1803. *In one small vol.* 8vo.

Some books now and then appear which seem as if they were expressly written to insult common sense, to discredit their authors, and to leave in their readers' mind a regret at having ever looked into them. Such exactly is the feeling which we have experienced on the perusal of this very superficial and desultory work. From the pompous title of *General history of the Sciences*, and from the awful and singular period in the history of the human mind to which it alludes, we expected some curious and interesting information concerning the rapid and hardly credible vicissitudes in all the branches of knowledge in France, and in the neighbouring countries, during the late political convulsions. We looked for an account of all those polemical writings which inundated France before the convocation of the States General; of the numberless disquisitions relative to the new order of things, under the constituent assembly; of the still more general topics of republicanism, which were prevalent during the earlier times of the national convention; of the *thousand and one* periodical publications in the interest of each party, within the same period; of the manifold labours of the committee of public instruction; of the wide and systematic Vandalism which took place under the dictatorship of Robespierre; of the systematic persecution carried on against sciences and scientific men, under the same dominion of the mob; of the influence which these operations produced on the mental pursuits of other European nations; and lastly, of those clouds which have been spread over the Republic of Letters, about the close of the 18th and the beginning of the 19th century.

We have been utterly disappointed in these expecta-

tions. Almost one half of the book consists of literary pictures of the three generations preceding the French Revolution. We are told that the writers of the age of Lewis the XIVth had carried the study of the Belles-Lettres to the highest degree of perfection: that Voltaire had founded the power of public opinion; Fontenelle had rendered the sciences popular, and in consequence of this, the body of universal learning was first exhibited in the Encyclopedia; Linnæus and Buffon had elevated natural history to its appropriate dignity in the empire of science; the mechanical part of physics had received many improvements since the time of Newton; the electrical phænomena had been multiplied in the hands of Gray and Dufay; chemistry had been enriched and improved by Stalh; Lavoisier had given to this science a new form and language; the greatest part of the latest discoveries in mathematics and mechanical philosophy were due to the analytical method; and the calculus of partial differences, and that of variations, had been already invented. We know all this; and we know likewise that it is not immediately connected with Mr. Biot's design—*Dic Posthume de tribus capellis!*

The author, confident, it seems, that these common topics of scientific history had already answered his purpose, goes on, with much frankness and intrepidity, in his historical account; and with a transition totally destructive of those natural laws of the association of ideas, the contiguities of time and place, he enters into the description of the scientific vicissitudes during the Revolution. We are told, in this part, that one of the great ideas of the learned men, which were carried into execution, under the constituent assembly, was, that of the uniform system of measures throughout the kingdom. The universities, already considered as superannuated institutions, were gradually deserted by the students, and soon after entirely superseded.

The constituent assembly, having vainly tried to preserve the existing education, could not even adopt any of the new plans presented to it, nor indeed the most essential part of them, the establishment of primary schools. The subsequent legislative assembly, still more agitated than the preceding, had no leisure to examine the extensive plan which had been proposed by Condorcet on the subject. The national convention, chiefly consisting of turbulent demagogues, had spurned with derision any law relative to public instruction. During this confusion, a decree was passed for enlarging the museum of natural history, and converting it into an instrument of public instruction. A plan was, about this time, conceived by Robespierre, for educating in common all children, without exception, at the public expence. The new system not only of measures, but of weights also, was put in execution, and some days after the academies were suppressed. In the singular difficulties of the war, new plans were invented for the formation of steel, gun-powder, saltpetre, and soda. Notwithstanding these services of scientific men, a systematic persecution still continued against them. In these circumstances, a military school was erected under the name of the *School of Mars*, for all the young people of the kingdom. After the death of Robespierre, the successes of the military plans contrived by the committee of public safety, had occasioned the establishment of the Polytechnic school. By the cares of the committee of public instruction, the Normal school was established, and pupils sent to it from every part of the country. The museum of natural history was still more enlarged in buildings, and in ground. The college of France, which had weathered the storms of the revolution, was put in greater activity than before.

And lastly, the three degrees of public instruction were established nearly on the same plan which had been proposed by Condorcet. Thus Mr. Biot finishes his historical narrative, of which we have given this faithful analysis.

It is strange that any author could ever have taken upon him to write an historical essay on the sciences, during the most distressing period of the civilized world, and have omitted to mention the most decisive and notorious facts relative to the subject. Not a single word is said about the performances of Malouet, Landine, Talleyrand, and other members of the constituent assembly, on public instruction, or concerning the celebrated work subsequently written by Chamfort, against the academies. No mention is made of the famous Henriot, so decidedly inimical to sciences, and justly denominated the Omar of the French Revolution. The celebrated *dépôt* of monuments of arts, in the *petits Augustins*, and the enlargements of the national library in Paris, remain unnoticed. We do not see any account of the numerous bounties and gratifications bestowed on learned men, by the national convention, during the year 1795; and what is hardly credible, the author, who is a professor of mathematics, has even forgotten the establishment of the Board of Longitude, which took place in the earliest part of the year 1796!

Had Mr. Biot just taken the trouble of looking into the publications of La Harpe, Suard, Richer, Serisy, and above all into the several reports made to the national convention by the celebrated Abbé Grégoire, in the name of the committee of public instruction, during the years 1794 and 1795, he might have given a short, sensible, and interesting account of the dreadful vandalism which took place under the terrorists. The famous library of the Abbey of St. Germain was set on fire, and magazines of combustible matters were also designedly established in other libraries. Most administrators of the several districts robbed and destroyed books and paintings; some others, equally guilty, left the scientific and bibliographic monuments to the mercy of insects, dust, and rain; nor were persons wanting, who, under the pretext of making selections, burned every book which appeared absurd, counter-revolutionary, and licentious, and they formed something like a political inquisition, by which all books underwent a malevolent proscription. Antiquities, medals, engravings, precious stones, pieces of natural history, became altogether the prey of villainy: the famous tables of petrified wood, formerly belonging to the Queen, were plundered and destroyed; the beautiful statues of Hypomene and Atalanta, at Marley, were broken in pieces; eight pillars of black marble, in the abbey of Touart, shared the same fate;

in Nancy, all paintings, and in Boulogne, four columns of porphyry were likewise destroyed.

These, and many other details of the same kind, are too curious not to deserve a particular notice. They, however, become more characteristic of the general event, when it is known that the abilities of the malcontents seized any opportunity of destroying their country, under the mask of patriotism; and it is really surprising that Mr. Biot has not so much as taken notice of any fact in this point of view. We are informed by the second report of Grégoire, that no sooner was it proposed to employ all the bells in the manufacture of guns, than a motion also was made, that all the brass statues, as well as the celebrated meridians, and the medals existing in the national library, should be likewise melted; that when the scarcity of coin was complained of, eight hundred golden medals were sent to the mint; that many paintings of Titian and Caracci were burned, because they represented objects of worship. The Reporter subjoins that the instigated mob went so far as to rush into all the printsellers' shops, and to destroy, without exception, any cuts, maps, prints, and miniatures, which they happened to see; that all scientific plans and military memoirs were stolen from the war and navy office; and that motions were made for destroying all the rare animals in the museum, and to set fire to the national library.

It is also remarkable that no particular account has been given of that vast number of learned men who were confined during the reign of terror, and of all the respectable books which they wrote whilst in confinement, such as the Elements of Natural History of Millin, the works of Cousin, of Rillaye, and of many others. The author seems to have been in some measure sensible of this defect, when he makes an exception in favour of Lavoisier and Bailly, who were put to death; and of Condorcet, who prevented a similar fate by poison.

We earnestly wish that our sensible and ingenious neighbours would send us less numerous and more solid books; and we should, for this purpose, advise their writers to be less active and more intense in their labours; as the publications which they have issued within the last six years, have been, with few exceptions, perfectly similar to the revolutions of their statesmen, and to the conquests of their generals—hasty, volatile, and inconclusive! F. D.

4. *Of the Essence of Things.*

It has been long a matter of controversy among philosophers, whether, in forming the idea or notion of any object, we must not have a substratum on which the qualities of matter or mind depend. Mr. Locke, we think, has sufficiently refuted the opinion of a substratum. We have no evidence of its existence, and are at a loss to guess the reason why some philosophers have been so anxious to establish it. Dr. Reid has said we know nothing of matter but relatively by its qualities; but we know the essence of those things which are the creatures of the imagination, as a circle or triangle. We have the greatest respect for Dr. Reid, and are never disposed to differ from him without due consideration, but we suspect that in this particular instance he has been deceived. The essence of a triangle is three angles, and the essence of a stone is extension, and hardness, and figure: that is to say, if we take away any of these requisites we cannot any longer have the idea of a triangle or of a stone. The word essence, if it have any meaning, can only signify those qualities or properties which are essential or necessary for a thing, or an idea of a thing to be what it is.

By the word qualities we understand whatever can be affirmed to belong to any thing. Thus the qualities of gold are yellowness, great weight, hardness, ductility, &c. the qualities of glass are hardness, smoothness, transparency, &c. By the essence of gold or glass, we mean or ought to mean those qualities which distinguish these two substances from every other substance. The essence of matter is extension, the essence of mind a capacity of thinking. If we are asked, what is matter? we answer by enumerating its qualities. But it has been still farther asked, what is this matter to which these qualities belong, are not substances and qualities different? This question arises merely from the structure of language; it is very true that adjectives and substantives are different parts of speech, because the speaker often wishes to turn the attention of the hearer to one quality rather than to others, and adjectives answer the purpose perfectly. But we must not be deceived by this; for language is not an exact copy of thought, it is only a method of exciting the same thoughts in other minds which we wish to excite. In fact the quality and the substance are not separable in thought; we cannot think of a quality without a substance, nor a substance without a quality. Had Mr. Hume attended to this, he never would have attempted to prove that there is nothing in the world but ideas and impressions; for ideas without a mind is as great a contradiction as a fixed planet, a square circle, or two parallel lines meeting. The distinction then between qualities and substances is merely the effect of language. If we know the qualities of a substance, we know the substance; and if we know the substance, we know the qualities. When we think of gold, we think of a yellow, hard, heavy, malleable, ductile existence; and to speak of gold and a yellow, hard, heavy, malleable, ductile substance is the same thing. We draw the conclusion then, which we doubt not will startle many as a very absurd one, that the qualities of a substance and the substance itself are the same thing.

NOTICES.

A complete translation of all the works of Plato, partly by Mr. Sydenham, but principally by Mr. Thomas Taylor, is expected to make its appearance in Sept. next. This work we are informed will contain in the notes to it, the substance of nearly all the existing Greek MSS. Commentaries and Scholia on Plato, together with copious extracts from all the established works of the most celebrated Platonic writers. A general introduction will also be prefixed to it, in which all the principal tenets of the philosophy of Plato will be unfolded from ancient sources. The known abilities of Mr. Taylor, as a translator, and his knowledge of the Greek language, and of ancient metaphysics, give room for the most favourable expectations of this performance.

Laborde's "Picturesque, historical, and geographical Travels in Spain," noticed in our seventeenth Number, will be comprised in four large folio volumes.—Half a volume will appear every half year; the subscription for each of which is 7 guineas the common paper, and 10½ guineas the fine. The great assistance which the author will receive from men of letters and artists, promises a most important work. Among the booksellers who receive subscriptions in town, are Mr. Payne of the Mews-gate, and Mr. Evans of Pall-mall.

A Treatise has been just published at Paris, of 84 pages 8vo, on the Finances of England, by J. Henry Lasalle.

The Duke of Saxe Weymar is reported to have made an experiment on his stage of the representation of some dramatic pieces of the ancients. Two comedies of Terence have been translated, and acted. The actors wore masks, and the ancient dress. It is affirmed that a tragedy of Sophocles is preparing to be represented on the same stage in all the purity of the Greek costume, and that the characters are to use the cothurnus, to give more elevation to their figure, and a nearer resemblance to that ascribed to the heroic ages.

Major General *Klinger* in the Russian service, director of the corps of Cadets, and member of the Committee of public instruction at Petersburgh, a native of Germany, and a writer of distinguished eminence, has lately edited an interesting collection of detached ideas and remarks on man and literature; in which speaking of Alexander I. he expresses himself to the following purpose:—"I never yet wrote a line on a sovereign, nor ever fawned on any. Should I then, with my experience, and at my age, dare to flatter him, whom I esteem the noblest of his Peers of our age, and *whom*—why not use the expression?—*I sincerely love*. To the fair Genius, who now reigns over Russia with such humanity and goodness, I am indebted for the purest enjoyment of the soul, the contemplation of his wise and glorious deeds. *He* is the only sovereign, whose biographer I would be; should I live to see the completion of the work which he has so bravely begun. So firm is my reliance on his head and heart, that I am perfectly satisfied, I should then have merely to arrange and record the vouchers of what I have here said of him." We must not omit to mention, that General Klinger speaks in the same work of despots and despotonomy with indignation and contempt, and throws deserved ridicule on a Russian Lord High Chamberlain, who used loudly and publicly at church to say the following prayer.—"*Have mercy upon me, merciful God and Father, and grant that the Emperor may look down on me with a gracious smile.*"

MANNERS.

Mr. EDITOR,

IN the present system of human conduct there seems to be a very general conception that excellence in every pursuit is to be acquired at once, and what necessarily results from such a notion, a very general contempt for inferior attainments.

The temple of Fame must now be taken by storm, or carried by surprize, for the votaries of modern ambition with characteristic impetuosity disdain to waste the energies of their genius in the slow approaches of a regular siege.

That this maxim of Cæsarian pride may be attended with some advantages I will not presume to deny; but the slightest reflexion will shew that the balance of evil preponderates. One injury which results from this species of ambition, of which the object is generally impracticable, is, that if the candidate for the highest prize in the lottery of human life be disappointed in his hopes, he will not rest on meaner rewards. He who has aspired to be great will disdain to be only useful. To him who sets his life upon a cast there is no medium between success and ruin. If, for instances of this immoderate and fallacious ambition, we turn our eyes to the STAGE, we perceive the candidate for theatrical honours attempting with unhallowed hands to snatch the wreath from living merit and departed fame; by him are to be surpassed the versatile genius of GARRICK, and the laboured excellence of KEMBLE. Disdaining the cold dictates of prudence, the candidate makes his first essay in the arduous character of Hamlet or Othello. To personify these master-pieces of the great dramatist, is requisite an assemblage of qualities rarely united in one individual;—of person, a polished elegance of manners and heroic dignity of mien; of voice, every modulation of tone from the soft accents of love to the most violent bursts of passion; of mind, quick conception, accurate judgment, and nice discrimination. There are other subordinate qualities, in their nature mechanical, which practice only can confer. In an attempt of this kind is it wonderful that the applause of the public is not commensurate with the hopes of the candidate, who, disdaining to serve where he aspired to command, seeks an audience less fastidious in taste or less niggard of praise, and struts his short hour the hero of a barn. Nor is the SENATE free from this puerile vanity—the young statesman prepares for the first time to address the assembled representatives of a people's rights—he chuses a subject on the discussion of which a nation's hopes hang in trembling suspense—he culls the choicest flowers of rhetoric—he strives to unite the vehemence of Demosthenes with the copiousness of Tully—he rises and rolls the studied thunders of his eloquence—already in fancy his contemporary rivals in oratory are eclipsed—and a senate is convinced by his superior powers—nor perhaps is admiration withheld from the beauties of his speech, and the graces of his delivery—but "*quid "dignum tanto feret hic promissor hiatu!*" will his future exertions keep pace with this laboured display of his talents? No, he has exhausted all his powers in the first effort, and unwilling to risk the fame which he has acquired, the fancied orator becomes a private in the ranks of faction, or the silent tool of ministerial corruption. This folly is to be traced through every walk of life from ST. GILES'S to ST. JAMES'S; every one would now be FIRST "the observed of all observers;" every one would place himself in the centre the object of notice by a circumference of admirers.

Yet surely if there be truth in the maxim of the satirist "*nemo repentè fuit turpissimus*," there is truth also in the proposition that excellence is not attainable at once. The powers of the human mind must be called forth by gradual developement, and improved by repeated exertions—he who aims at military renown, does not commence his career by conducting armies; he must rise by slow gradations and through subordinate ranks; he must learn the minutiæ of tactics before he can hope to be intrusted with the dignity of command.

This rage for sudden excellence, then, is pregnant with evils both to the individual and to the community, it is fatal to the happiness of the one and the welfare of the other. It creates a contempt for the humble occupations of useful mediocrity: to borrow a mercantile phrase, it converts the fair trader into a fraudulent speculator, whose eye, fixed on the splendid scene of prospective wealth, sees not the gulph of bankruptcy beneath his feet. I wish therefore, Sir, to have it impressed on the mind of youth, that there is no short path to excellence; that, in the language of BACON, "the ascent to great-"ness is by a winding staircase;" that the rewards of fame can be purchased only by the price of labour, and that the experience of history and the evidence of reason combine to prove that there is no easy method of becoming great. CENSOR.

We acknowledge that the above letter was received about the commencement of our Journal, but for reasons, the propriety of which, we trust, the author will allow, we delayed inserting it, lest a check should be unintentionally given to any of the aspiring geniuses who suggested the subject. The day of suspense, however, is now past. The theatrical season and the parliamentary sessions are almost closed, and we are yet to be amused and to be governed, in the absence of the Kembles and the Pitts, by men of inferior talents and humble expectations.

The affairs, however, of the great *National* theatre, do not in strict propriety fall within our province; but, with Censor, we have not been inattentive spectators of that ambition which a few months ago threatened to fill our winter theatres with Booths and Bettertons, with Garricks and Barrys, and to annihilate all that class of performers who, in subordination to the Hamlet or Macbeth of the scene, have hitherto constituted the *dramatis personæ*. A *few* Garricks we could have permitted, and they might have found employment, but it would have been impossible to give encouragement to the vast multitudes who applied: for in that case Shakspeare's best plays must have been reduced to monodies, or pieces of declamation spoken or recited by one person, who having no inferior, and acknowledging no superior, the rest of the parts could not have been filled up.

From a calamity, however, so destructive to the established constitution of the drama, we seem to be delivered by one of those sudden revolutions of public opinion for which it is not easy to account. At the beginning of the season, nothing would content us but a new Hamlet, a new Richard, or a new Macbeth, once a week at least; at the end of the season, we are perfectly satisfied that all first-rate characters should be acted by second-rate performers; and six months have actually elapsed without our missing the talents of a Kemble and a Siddons. By what means such *wants* have been supplied, and with what advantages to the interest of all parties this new scheme of acting the best plays and omitting the best performers, has been attended, are *arcana*, profundities, in the art of management, which we do not profess to understand. But if what our correspondent terms a "rage for sudden excellence" were visible only in the attempts made to exhibit half a dozen new Garricks every year, it would perhaps be a subject rather for ridicule than for serious reflection; but in truth the same species of ambition is to be discovered in other walks of life. Most men seem desirous to attain the end without the tedious intervention of the means. Hence the young tradesman becomes at once, in appearance and in expences, a first-rate merchant; he looks at nothing but the splendid equipage, the spacious mansion, the vast estate, or perhaps a seat in parliament, or at the public boards. He never considers by what tedious process all this has been acquired, and that in most cases it has employed the credit and capital of perhaps two generations, or the character and industry of two families, to lead to such elevation of rank. All this he omits, and considers only what seems most easily practicable, and that is, the outward appearance and semblance of wealth, the well-stocked cellar, the shining sideboard, the spirited horses, and the liberal entertainments. These are not difficult to be procured, but constant experience proves that they cannot last, and that instead of being the legal representatives of substantial wealth, they are clumsy forgeries that can impose only on the most credulous.

It is wonderful what successions of imposition are practised in consequence of the great changes that have taken place within the last fifty years in our ideas of the representation or the signs of wealth. It was formerly necessary to visit a man's house to be satisfied of his prosperity: there every thing was substantial, every thing massy: his establishments were liberal; his servants held their places by a kind of freehold, in which fidelity on the one hand, and kindness on the other, were *good considerations*; some judgment might be formed from these appearances, but nothing from the figure the master made without doors; his travelling and his visiting equipage were plain, and seldom varying in figure or fashion could indicate no important change in circumstances. But, of late, the public have agreed to form its opinion of wealth entirely by out-door appearances; and it is supposed to increase in proportion as it enables the possessor to be a leader in the fashionable expences (not of England, not peculiar to Great Britain) but of LONDON. The mansions set apart for this display of grandeur, exhibit nothing substantial, and nothing massy; whatever is done, is done for a temporary occasion; there is splendour for a day, or rather a night, and parsimony for a month.

Even the architects have humoured this taste, by devoting the principal part of a house to what is called a *suite* of *rooms*, while the accommodations for domestic purposes are frequently more mean than in the houses of common tradesmen. But these suites of rooms do not belong to the tenant, or nominal owner; they are the property of the public, and never made use of, but when the public chuse to occupy them; and at that time, so far is the owner of the house from exhibiting his wealth and property, that, with the exception of a few articles of plate of the modern flimsy construction, every thing the guests behold is furnished by various tradesmen, who remove their goods next day, and are paid for the use

of them, and for accidental breaking, &c. By what fatality has it happened that this is called magnificence or hospitality? Does it in any degree resemble the ancient hospitality of our nobility and gentry? Is it not in fact an aukward mixture of the dwelling-house and the tavern? Is it not declaring that the *friends* of persons of fashion are of late years so much increased, that they cannot be entertained without the aid of publicans, vintners, pastry-cooks, waiters, and all the equipage of the tavern?

R. S.

NOTICE.

The sale of the effects of the prince of Oetingen Wallestein exhibited some curious particulars. He left 300 gold watches, 250 gold and silver snuff-boxes, 1000 pair of stockings, nearly an equal quantity of gloves, and so of the rest.

POLITICS.

1. *On the Woollen Clothiers Bill.—Continued.*

WE made some observations in our last Number on three of the laws whose operation cramps the woollen manufacture, and opposes its improvement. These are, the statute of apprenticeship, the law which forbids the use of certain machinery, and that which opposes the establishment of factories in any place but market towns. With regard to the first two we think nothing requisite to be added to what we have already advanced. The prohibition of carrying on manufactures in the country is so extraordinary, as well as impolitic, that we deem it worthy to receive a little more of the attention of our readers.

It is part of that wretched system of monopoly, which being agreeable to the ideas of a rude period, is extended over every thing, and acquires such an influence by habit, and the numbers who become interested in its preservation, that it is one of the strongest obstacles to the progress of improvement, at a time when the diffusion of knowledge would otherwise give us reason to expect its rapid advancement. By the establishment of corporations in the market towns, that is, the erection of associations of the different traders into privileged companies, with power to regulate the terms of admission into their body, as well as the behaviour of the members, and with power also to prohibit from the exercise of the trade within that town, all persons who were not of their body, the associated traders enjoyed the complete monopoly of the trade against all their fellow townsmen. And when the associated traders of the different towns acquired influence enough to obtain a law prohibiting the trade to be carried on in the country, they obtained a complete monopoly of the trade against their whole fellow citizens. Nor was it by means of corruption, that such grants were generally obtained; the traders most frequently had address enough to persuade the legislature that their request was for the good of the country. This compliment to the virtue of our lawmakers is paid rather at the expence of their heads, but that we cannot help.

It is not easy to conceive what argument could have been employed by the woollen manufacturers of the towns, to persuade the legislature that it was for the good of the country to allow no establishment in their branch of business to be made in the country. Surely cloth may be as well worked there as in a town; and the morals of the workmen are surely in less danger of corruption. To prevent, however, all such establishments, the law No. 3, which we quoted in the Journal of last week, was made, which prohibits the use of more than one loom in any house not in a market town. This law, as may be supposed, has not been very rigidly obeyed, even by the town manufacturers themselves, who have often occasion to employ weavers in the country, and do not inquire very anxiously whether there are two looms in the house, or only one. The greater part of the woollen cloth has hitherto been worked by the weavers in their own houses. And this has enabled the manufacturers who, for the sake of water and fall, had erected factories in the country, to conduct their business, with some regard to the statute. But it is found convenient on many accounts to have a considerable proportion of weavers at hand, and even at work within the factory. From this convenience the country manufacturers are debarred by the statute. It has been found too, that embezzlement, by the workmen, of they arn entrusted to them in their own houses, has risen to a deplorable height. The manufacturers can much more easily prevent this, when the work is performed within their own walls, and under their own eyes. And whatever temptations to other vices the men may be subject to, from being assembled together, the manufacturers think, that these would be more than compensated by the preservation of their honesty; and at any rate that these temptations would be less in the country than in towns. The reasonableness of allowing the woollen manufacturers to carry on their business in the places best adapted for it, and to employ their workmen in the way which they find most advantageous to the trade, cannot surely be doubted. The general laws which protect the rights of the subjects, and the natural competition of the masters, insure the good usage of the workmen in this, as in every other trade; and all additional securities are not only useless, but pernicious.

We come next to the statutes quoted 4th in our last Number. According to these it is ordained that all cloths shall be manufactured of a certain length, breadth, and weight, there specified. But by the extension of the market for our woollen cloth it has happened, that one rule with regard to these particulars will not answer; and that cloth of that length, breadth, and thickness which is sought for in one place, will not be received in another. The Turkey trade, for example, requires cloths of the very finest and thinnest texture. For the East and West Indies, cloth a degree thicker is required. For Russia it must be provided thicker still. Even for the home market, great variety is required. Ladies' cloths are made very light and fine. Superfine cloth is a good deal thicker and stronger. And double-milled superfines are the thickest of all. How absurd is it for the law to say to the manufacturer that he shall not accommodate himself in these respects to the taste and convenience of his customers? And what evil can accrue to the state, if he should do so? We may safely leave

the absurdity of such a regulation to the reflections of our readers. By another regulation of the same statutes a particular degree is fixed for the tentering, stretching, and straining of cloth, with a view to prevent the injury it may sustain by being over stretched or strained. But it is found that different degrees of straining, &c. are best adapted to the different kinds of cloth, which are wanted. And is not the interest of the manufacturer himself the best security against any injurious treatment of his cloth, since his customers will not receive it from him, if they get it bad? From the same ignorance of this most effectual security, the law appoints searchers, overseers, and inspectors, &c. for the viewing, washing, and sealing of the cloth. So useless, or so inconvenient is this clause of the law, or so negligent is the execution of the law, that not a single officer of the species here described has been known in the county of Gloucester by any manufacturer now living. But for many years past the character of the cloths, manufactured in this county, instead of having declined on that account, has progressively and largely increased. It is besides abundantly evident to any person, who has paid the least attention to the woollen manufacture, that the business of the inspector, if executed, must occasion great inconvenience to the manufacture, must interrupt its progress, in some of its most critical steps, materially injure both the colour and quality of certain cloths, they being in a wet state, retard the execution of orders, and sometimes interrupt them altogether when ships are on the point of sailing.

The statute, quoted 5th, forbids the sale of cloths tacked or folded. The intention of this prohibition is to guard against the fraud of putting worse cloth in the inside of the folded piece, than that which is outermost and visible. But for the supply of foreign customers in particular, and of every other customer at a distance, it is found absolutely necessary to fold, and tack the cloth, for the convenience of carriage. The nature of trade is now so completely understood, that every one knows fairness to be his true interest; and besides, by the universal extension of commercial credit, the buyer has an opportunity of examining his purchase, and making deduction for any imperfection before he pays for it.

The reason of the law quoted 6th, it is not easy to discover. It forbids the exportation of cloths, unbarred (unbarbed), unrowed, or unshorn. At present there are several species of cloths made for exportation, which are never intended to be barbed or shorn. Such are beavers, coatings, swans-downs, and others. Nothing surely is necessary to be added to demonstrate the absurdity of a law which prohibits the exportation of such cloths.

The law quoted 7th, which forbids the use of the hot-press, was probably owing to an idea that this process was injurious to the cloth. Whether it be so or not, the choice of hot-pressed or cold pressed cloth may, without any national evil, be left to the purchaser; and it is surely very unnecessary for the legislature to interfere in such a transaction. According to the present taste, the whole of the cloths for the foreign market, and the greatest part for home consumption, are required to be hot-pressed. It is very hard that a law must be broken, or the greater part of the woollen trade given up.

It was the same most superfluous care for the soundness of the woollen manufacture which dictated the law quoted 8th. This law was intended to prohibit the use of certain ingredients in the dying of the cloth, under the notion of their being injurious to its quality. The impropriety of allowing this law to remain is proved by stating a simple fact, that the improvements in chemistry, and in the art of dying, have rendered these ingredients necessary in many colours.

The last of the laws, quoted in our first Paper on this subject, forbids the use of lambs' wool in the manufacture of cloth. But it is found that by the improvements in machinery, and the progress of skill in manufacture, lambs' wool may be employed with advantage in certain cloths. The natural course of the market makes them find their just value, in the same manner as other cloths.

Of all the above mentioned laws, that which restrains the use of machinery, is the only one to the repeal of which the smallest objection has been attempted to be raised. The danger is represented to be great of throwing men out of employment. It is very extraordinary that the same improvement to which, in the opinion of the objectors themselves, we owe our superiority in the woollen trade over other countries, should be considered by them as improper to be carried on still further, and to increase that superiority still more. The abridgement of labour, by the use of machinery, and by the skilful distribution of the different parts of the work, lowers the price of the commodity to all the inhabitants of the country, and gives it an advantage in the foreign market, above that of other countries. Both of these are great acquisitions. And do they not compensate the trifling disadvantage of throwing a few men out of employment? If they be willing to work, they will not long be deprived of employment of some kind in a prosperous country. Besides, the demand in general becomes so much greater for the commodity in consequence of the reduction of price, that the introduction of a new machine soon gives occasion to the employment of more hands than were wanted in the business before. Whatever objections can be made to the use of new machinery, might have been made to every machine which is now used, to the spinning-wheel instead of the distaff, to the carding-mill instead of the hand. According to this plan, half the inhabitants of the country would not be sufficient to make all the woollen cloth, which is at present manufactured in it, and by a very inconsiderable part of the inhabitants. Have we lost any thing by this diminution of the number of hands? We have only left ourselves so many more to carry on our agriculture, to man our ships, to manufacture our flax, our cotton, our iron, &c. and increase the annual produce of our country in every article. The introduction of a machine which makes fewer men necessary for the execution of a particular piece of work, besides reducing the price of the commodity, is exactly equivalent to the creation of an equal number of men, full grown, and educated to a particular trade. Would this be any disadvantage to this country?

It was stated to the committee of the house of commons that there was danger, if our weavers were thrown out of employment, of their being induced to go to Spain, where they would establish the use of our machinery, and give Spain the decided superiority over this country, since wool is obtained there at one third, and oil and soap at one half less than here. Several curious facts were mentioned to enhance the opinion of this danger. It was stated as a fact, that any manufacturer, competent to establish the manufactory on the footing on which it is carried on in this country, might have 1000 guineas per annum secured to him for a certain number of years. And in confirmation of this it was mentioned, that about the year 1780 a tanner was induced to go to Spain, that a capital to the amount of £60,000 was advanced to him by the government to establish his business, that he was desired to chuse himself the situation best adapted to his purpose, that a convent near Seville was granted to him, from which the friars of the order of St. Jago were removed to make way for the labourers brought from England, that nearly forty English families settled there, and were protected in their religious principles, and that this establishment has so far succeeded that the export of tanned leather is very much reduced.

But all this is very little to the purpose. It is obvious, that extraordinary inducements may carry away our people when employed, as well as when unemployed. The annual amount of their wages is the trifling difference between the two cases, not worthy to be much valued by a government, which has a great object in view. But further, the fact is, that there is no unusual number of the workmen belonging to the woollen manufacture out of employment at present, nor likely to be by the introduction of any machinery. The demand for the manufacture is increasing so fast, that there is greater probability of a want than of a superfluity of hands. Besides, who is ignorant enough to believe that the woollen manufacture can be erected in a country at an hour's warning, by purloining a few of the inhabitants of another country? Forty families we are told erected the tanning manufactory in Spain. And well they might. Tanning is one of the simplest of all manufactures. But 50 times forty families are not more than sufficient to erect the woollen manufacture even on a very moderate scale. The woollen manufacture is one of the most complicated known, if we trace it from the separation of the wool from the sheep, through the hands of the cleaner, dyer, carder, spinner, winder, weaver, shearer, &c. Ages are necessary to teach a nation a trade of this kind, carried to the refinement and perfection which it has acquired in this country.

2. *Police.*

An action was decided in the court of King's Bench on Thursday last, of such importance as to deserve, in our opinion, the particular attention of our readers. Belcher and Bourke, the two celebrated boxers, with their two seconds, Ward and Lee, had been tried at the Quarter Sessions for the county of Berks, at the instance of Lord Radnor, the chief magistrate of the county, for a conspiracy to break the peace, by meeting to fight one of their peculiar duels. They allowed judgment to go against them by default, and the indictment was removed into the court of King's Bench, where on Thursday last, the following proceedings took place:—

Mr. Garrow, on the part of the crown, declared that the intention of removing the action into that high court, was to obtain, if possible, a correction to which the inferior courts were found to be incompetent, of an abuse, which he stated "to be of the most enormous magnitude. Those," he said, "who *encouraged* such practices would next be called to account. At the bottom of the mischief were men who for a base and scandalous gratification stirred up their fellow creatures to mangle one another. It would be to abuse their Lordships understanding to enlarge on the brutal nature, and mischievous tendency of prize-fighting. He should confine himself to the danger offered to the public peace, and the indecency, in a country which possessed any thing resembling police, of permitting thousands of persons of all orders and degrees to assemble for the enjoyment of a spectacle, *the very account of which was enough to freeze one's blood.*"

Mr. Garrow further stated, that he could name those who had paid the debts of one of the defendants, to get him out of prison in order to fight this battle. Some of them, he said were persons of distinction. "All principle," cried the counsellor, on this occasion, "seems about to be extinguished! An E O table on the one hand, and a gentleman running against a sow on the other, fill up the list of Newmarket entertainments!"

Lord Ellenborough declared, "that the practice must be suppressed, as it was pregnant with the most mischievous consequences. The limbs, and lives of the subjects were most unnecessarily exposed: licentious idleness was propagated: the dispositions of the people were brutalized by those inhuman spectacles: and such disorderly assemblies were the fittest of all occasions for evil disposed persons to disseminate abominable designs."

Instead of pronouncing judgment, the court allowed the defendants to enter into a recognizance in £400 each, to appear to receive judgment when called for, and to keep the peace in the mean time. And it was declared to be understood that the instigators, and abettors, would be prosecuted as principals.

We have not observed the activity of the magistrates to be more exerted on any occasion than to prevent some late attempts at pugilistic rencounters. And now the affair seems to be taken up with great solemnity and earnestness by the King's high court itself. We have not, however, been able to forbear remarking, in the midst of this zeal to suppress boxing matches among the people, that some late proceedings of the lower house of parliament have not been in the same temper. And we have almost expected to find one distinguished member of that assembly bring in a bill for the liberty of unlicensed boxing. The striking inconsistency at least between the conduct of the magistrates, in persecuting with such fury the amusement of two men baiting one another, and that of the house of commons, in sanctioning the amusement of

a bull and a dog at the same occupation, is apparent to all the world. And unquestionably, if the one be a fit and improving spectacle for the British people, so is the other.

If, for example, it have a fine effect on the courage and manhood of our people, to see a dog and a bull mangle one another; on every account the effect must be stronger when two men are seen mangling one another. The men are by much the finer animals, and of course fire our ambition to imitate them more strongly. They display much greater skill and address, from which the spectators may learn salutary lessons. Besides we can enter much more easily into the feelings of two men, while in the act of courage, than into those of a bull and a dog; we conceive much more vividly the sentiments by which they are actuated, their high courage, their contempt of pain, their spirit of perseverance, and noble disdain at the thought of defeat; and similar emotions, by the necessary effect of sympathy, spring up in our own breast, which scarcely yield in point of strength to those of the actors themselves. Our sympathy with the feelings of the lower animals is much weaker than with those of our fellow creatures. All the precious effects therefore, derived from this improving exercise of the mind, are obtained in a much smaller degree by the battles of bulls and dogs, than by those of men.

If the sight of a bull or a dog in the agonies of death, bravely received while maintaining the combat, have a tendency to form the minds of men to meet the king of terrors with constancy, the sight of a man expiring under the blows of his fellow without shrinking, must have a much more energetic and glorious effect. The habit of witnessing such a spectacle as this, must be valuable indeed; and it is only necessary to render it sufficiently frequent to make us as brave as the bulls and dogs themselves. We are persuaded that this principle furnishes a light to illustrate a fact, which hitherto has appeared somewhat extraordinary, the singular courage displayed by the French armies, though composed even of raw recruits, during the wars of the revolution. The number of men put to death in a public and violent manner during that revolution was extraordinary; and this improving and patriotic exhibition had its natural heroic effect upon the minds of the people. We are afraid the people of this country are not yet sufficiently convinced of the power of this admirable mean of producing courage; and that they would rather be offended than pleased, if we should recommend to them to torture, and put to death, even at this period, when courage is so much wanted, some of the greatest and best men in the nation. Otherwise the effect of such a representation upon their minds is not to be doubted. But we should think there could be no reasonable objection to bring in a bill for a grand national boxing; and we would humbly propose that the first match should be on a stage at Charing-cross, between the legislative advocate of bull-baiting, and the warlike gentleman who weekly retails the sentiments of the former in a periodical pamphlet. We think that no admirer of bull-baiting can have the smallest doubt of the true courage to which this would give occasion; and that the sight of these two magnanimous gentlemen pummeling one another till they could not stand, would delightfully prepare the mob of London to oppose the march of Bonaparte to the metropolis.

We do not mention it, as being in our opinion any real ground of recommendation, that boxing is a less cruel spectacle than bull-baiting. But it may serve to remove the opposition of some weak-minded people, canting old women, dissenters, and others, to shew that it is so. In the first place, the men go to battle voluntarily; the brutes are brought together, and made to attack each other. This difference is most important, for it is a maxim which has long approved itself to the sentiments of mankind, that *volenti non fit injuria*. In the next place the men need not fight any longer than they please; the animals are not allowed to desist when they please. Again, the combat is very seldom carried to such extreme length between the men as between the brutes; the men in general come off with only a few bruises, from which they recover in a day or two; the animals are mangled and torn to pieces, and their lives destroyed in the midst of torture. If the advocates for bull-baiting object that the pains and sufferings of a human being are of too much consequence to be employed on such an occasion, we are convinced they may be quickly made to perceive their mistake. They do not say that the pains and sufferings of bulls and dogs are of no consequence. What then do they say?—That the effect produced by these, the courage of the people, is of still greater consequence, and not too dearly bought at that price. But if the courage of the people is not too dearly bought by the tortures and death of bulls and dogs, can it be pretended that a much greater degree of courage, spread through the whole mass of a great people, is too dearly bought by the bruises of a few of the most worthless of the body? Surely the gentleman who cried, "Perish our commerce, live our constitution!" is not unacquainted with the doctrine of making great sacrifices to obtain great ends.

Lord Ellenborough complains that the people are withdrawn from their occupations by attendance on boxing-matches, and that a spirit of idleness and licentiousness is propagated among them. But this bears equally hard against attendance on bull-baitings, and is much more than compensated by the courage generated on such occasions, and the hatred against cant, and dissenting principles. The respectable judge too complains that the dispositions of the people are brutalized by the inhuman spectacles of boxing. But it is truly singular to observe so great a man fall into so deplorable a mistake. What he calls brutality is courage; one of the most glorious qualities of a human being, to be acquired admirably both in bull-baiting and in boxing assemblies. The judge spoke in strong terms of the dangers arising to the public peace from such disorderly assemblies as those at boxing matches. It is sufficient to say that the danger is equally great with regard to the *legal* assemblies at bull-baiting matches.

As to the opinions of those who think that neither bull-baiting nor boxing assemblies are the proper schools of courage, that the careful education of the lower orders, and that treatment of them which

makes them feel their dignity as men, is the real source of all true courage among them; the opinions too of those who think that the culture of humanity is not unfriendly to courage; that the refinement and illumination of the present times has raised the courage of the lower orders; and who to this purpose quote Mr. Hume in his essay on refinement in the arts, where he says that "We need not fear, that men, by losing their ferocity, will lose their martial spirit, or become less undaunted and vigorous in defence of their country or their liberty. The arts have no such effect in enervating either the mind or the body. On the contrary, *industry*, their inseparable attendant, *adds new force to both*. And if anger, which is said to be the whetstone of courage, loses somewhat of its asperity, by politeness and refinement; a sense of honour, which is a stronger, more constant, and more governable principle, acquires fresh vigour, by that elevation of genius which arises from knowledge, and a good education:" —As to these opinions we conceive them all to be so utterly unfounded, to exhibit so shallow a knowledge of human nature, and human affairs, and to be so unworthy of the attention of our readers, that we will not deign to make any observation upon them.

3. *The King's Message.*

We have now the melancholy task imposed upon us of announcing the hostile termination of the negociations which have been carrying on for some time between the government of this country and that of France. On Monday evening, the following message was brought down from the King to Parliament.

"*G. R.*

"His Majesty thinks it proper to acquaint the House of Commons, that the discussions which He announced to them in His Message of the 8th of March last, as then subsisting between His Majesty and the French Government, have been terminated; that the conduct of the French Government has obliged His Majesty to recal His Ambassador from Paris; and that the Ambassador from the French Republic has left London.

"His Majesty has given directions for laying before the House of Commons, with as little delay as possible, copies of such papers, as will afford the fullest information to His Parliament at this important conjuncture.

"It is a consolation to His Majesty to reflect, that no endeavours have been wanting on His part to preserve to His subjects the blessings of peace; but under the circumstances which have occurred to disappoint His just expectations, His Majesty relies with confidence on the zeal and public spirit of His faithful Commons, and on the exertions of His brave and loyal subjects, to support Him in his determination to employ the power and resources of the Nation, in opposing the spirit of ambition and encroachment, which at present actuates the Councils of France; in upholding the dignity of His Crown; and in asserting and maintaining the rights and interests of His people."

It was stated at the same time that letters of marque and reprisal had been issued, and of course hostilities begun. Yet all hopes of accommodation are not absolutely excluded.

With regard to the termination of the contest, if contest it must be, we have no degree of anxiety. It must be favourable to this country. Of the necessity of the unfortunate rupture, we can only judge when the grounds of it are laid before the public. But we sincerely hope it is one of those clearly defined, and important points of interest, which will unite the hearts of the inhabitants of this country, and rouse those manly feelings by which they are so eminently distinguished above any other inhabitants of this globe.

TO CORRESPONDENTS.

*** *We firmly intended to have published in this Number a Communication which we have received from Mr. Capel Lofft on the subject of his former letter. He will have the goodness to excuse us till our next number; the last, we hope, which shall have any thing to do with this controversy.*

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No. 71, St. Paul's Church-yard, May 2, 1803.

NUMBER 21.] THURSDAY, MAY 26, 1803.

PHYSICS.

I. *Some Account of Dr. Black.*

THE name of Dr. Black stands so high in the catalogue of the philosophers of the 18th century, and his discoveries had so marked an influence on the progress of chemistry, that the publication of his lectures, late as the period of their appearance is, must be considered as a valuable present to the literary world. We shall take an early opportunity of furnishing our readers with an analysis of this interesting work, and with the no less interesting historical information furnished by Professor Robison the editor. At present we mean only to give a short view of the life and character of Dr. Black, as it has been admirably developed by the celebrated editor.

Dr. Joseph Black was born in France, on the banks of the Garonne in 1728. His father, Mr. John Black, was a native of Belfast in Ireland, but of a Scotch family which had been some time settled there. Mr. Black resided most commonly at Bourdeaux, where he carried on the wine trade. He married a daughter of Mr. Robert Gordon, of the family of Hilhead in Aberdeenshire, who was also engaged in the same trade at Bourdeaux. Mr. Black was a gentleman of the most amiable manners, candid and liberal in his sentiments, and of no common information. He enjoyed the particular intimacy and friendship of the celebrated president Montesquieu, who most likely acquired his knowledge of the constitution of Britain, for which he was known to have a strong partiality, from the information communicated by Mr. Black.

Long before Mr. Black retired from business, his son Joseph was sent home to Belfast that he might have the education of a British subject. He was then twelve years of age, and six years after, in the year 1746, he was sent to continue his education in the university of Glasgow. Being required by his father to make choice of a profession, he preferred that of medicine as most suited to the general habits of his studies.

It was fortunately at this time that Dr. Cullen had just entered upon his great career, was become conscious of his strength, and saw the great unoccupied field of philosophical chemistry open before him. He quickly succeeded in taking chemistry out of the hands of mere artists, and exhibited it as a liberal science. His pupils became zealous chemists, as well as refined physiologists. Young Black was particularly delighted with the science, and his great bias to the study was soon perceived by Dr. Cullen, who delighted to encourage and assist the efforts of his students. He soon attached Mr. Black to himself so closely, that the latter was considered as his assistant in all his operations, and his experiments were frequently adduced as good authority.

Our young philosopher had laid down a very comprehensive plan of study, as appears from his notebooks which are still preserved. In these he wrote down every thing that occurred to him, and they exhibit the first germs and the progress of his ideas, till the completion of those great discoveries which produced so complete a revolution in chemical science.

He went to Edinburgh to finish his medical studies in 1750, and while in that city he lived with his cousin-german, Mr. Russel, professor of natural philosophy in that university. At this time the medical professors entertained different opinions concerning the action of lithontriptic medicine, particularly lime water, and the students as usual entered eagerly into the controversy. It seems to have been this circumstance that led our young philosopher to investigate the cause of causticity, a property in which all the lithontriptics then in vogue agreed. At first he suspected that lime, during the burning of it, imbibes something from the fire, which it afterwards communicates to alkalies: this he attempted to separate and collect, but obtained nothing. This led him to the real cause, which he detected about the year 1752, and published soon after in his inaugural dissertation on magnesia. Lime-stone he found a compound of *lime* and *fixed air*. Heat separates the *air* and leaves the lime. The common alkalies of commerce are compounds of the pure *alkaline substance* and *fixed air*. Lime abstracts the fixed air from these bodies: hence their causticity. This important discovery was detailed at full length in his dissertation on magnesia and quick-lime, published 1755.

At this time Dr. Cullen was removed to Edinburgh, and there was a vacancy in the chemical chair at Glasgow. On whom could it be bestowed with greater propriety than upon the author of so important a discovery? Accordingly Dr. Black was appointed professor of anatomy and lecturer on chemistry in the university of Glasgow, in 1756. He did not consider himself as so well qualified for filling the anatomical chair as he could have wished. This induced him, with the concurrence of the university, to change tasks with the professor of medicine.

While in Glasgow, therefore, his chief business was delivering lectures on the Institutes of Medicine. His reputation as a professor increased every year, and he became a favourite practitioner in that large and active city. Indeed the sweetness of his temper could not fail to make him a welcome visitor in every family. His countenance was no less engaging than his manner was attractive. The ladies regarded themselves as honoured by his attentions, particularly as they were exclusively bestowed on those who evinced a superiority of mental accomplishments or propriety of demeanour, and in grace and elegance of manner. This situation, and the anxious care which he took of his patients, may in some measure account for the little progress made by Dr. Black in that fine career

of experimental investigation which he had so auspiciously opened. Yet his inactivity must be lamented as highly injurious to science; it displayed an indolence or carelessness of reputation not altogether to be justified.

But perhaps the other regions of chemistry held out temptations too captivating not to engage his attention. It was between the years 1759 and 1763, that he brought to maturity his speculations concerning heat, which had occupied his attention at intervals, from the very first dawn of his philosophical investigations. His discoveries in this department of science were by far the most important of all that he made, and perhaps indeed the most valuable which appeared during the busy period of the 18th century. To enter fully into the nature of his investigations would be improper in this place; but the sum of them all was usually expressed by him in the following propositions.

1. When a solid body is converted into a fluid, there enters into it and unites with it, a quantity of *heat*, the presence of which is not indicated by the thermometer, and this combination is the cause of the fluidity which the body assumes. On the other hand, when a fluid body is converted into a solid, a quantity of *heat* separates from it, the presence of which was not formerly indicated by the thermometer. And this separation is the cause of the solid form which the fluid assumes.

2. When a liquid body is raised to the boiling temperature, by the continued and copious application of heat, its particles suddenly attract to themselves a great quantity of heat, and by this combination their mutual relation is so changed that they no longer attract each other, but are converted into an elastic fluid-like air. On the other hand, when these elastic fluids, either by condensation or by the application of cold bodies, are reconverted into liquids, they give out a vast quantity of heat, the presence of which was not formerly indicated by the thermometer.

Thus water when converted into ice gives out 140° of heat, and ice when converted into water absorbs 140° of heat, and water when converted into steam absorbs about 1000° of heat without becoming sensibly hotter than 212°. Philosophers had been long accustomed to consider the thermometer as the surest method of detecting heat in bodies, yet this instrument gives no indication of the 140° of heat which enter into air when it is converted into water, nor of the 1000° which combine with water when it is converted into steam. Dr. Black, therefore, said that the heat is concealed (*latet*) in the water and steam, and he briefly expressed this fact by calling the heat in that case *latent heat*.

Dr. Black having established this discovery by simple and decisive experiments, drew up an account of the whole investigation, and read it to a literary society which met every Friday, in the faculty-room of the college, consisting of the members of the university and several gentlemen of the city, who had a relish for philosophy and literature. This was done April 23, 1762, as appears by the registers. This doctrine was immediately applied by its author to the explanation of a vast number of natural phænomena, and in his experimental investigations he was greatly assisted by his two celebrated pupils Mr. Watt and Dr. Irvine.

As Dr. Black never published an account of his doctrine of latent heat, though he detailed it every year subsequent to 1762 in his lectures, which were frequented by men of science from all parts of Europe; it became known only through that channel, and this gave an opportunity to others to pilfer it from him piece-meal. Dr. Crawford's ideas respecting the capacity of bodies for heat, were originally derived from Dr. Black, who first pointed out the method of investigating that subject.

The investigations of Lavoisier and Laplace concerning heat, published many years after, were obviously borrowed from Dr. Black, and indeed consisted in the repetition of the very experiments which he had suggested. Yet these philosophers never mention Dr. Black at all: every thing in their dissertation assumes the air of originality; and indeed they appear to have been at great pains to prevent the opinions and discoveries of Dr. Black from being known among their countrymen. But perhaps the most extraordinary procedure was that of Mr. Deluc; this philosopher had expressed his admiration of Dr. Black's theory of latent heat, and had offered to become his editor. Dr. Black, after much entreaty, at last consented, and the proper information was communicated to Mr. Deluc. At last the *Idées sur la Meteorologie* of that philosopher appeared in 1788. But what was the astonishment of Dr. Black and his friends, when they found the doctrine claimed by Deluc as his own, and an expression of satisfaction at the knowledge which he had acquired of Dr. Black's coincidence with him in opinion!

Dr. Black continued in the university of Glasgow, from 1756 to 1766, much respected as an eminent professor, much employed as an able and most attentive physician, and much beloved as an amiable and accomplished gentleman, and happy in the enjoyment of a small but select society of friends. Often, however, says Dr. Robison, have I seen how oppressive his medical duties were on his spirits, when he saw that all his efforts did not alleviate the sufferings of the distressed. When his dear friend Dr. Dick, professor of natural philosophy, was carried off, Dr. Black's distress indeed was exceedingly great, particularly as he thought that another mode of treatment might have been more successful.

In 1766 Dr. Cullen was appointed professor of medicine in the university of Edinburgh, and thus a vacancy was made in the chemical chair of that university. Dr. Black was with universal consent appointed his successor. In this new scene his talents were more conspicuous, and more extensively useful. He saw this, and while he could not but be highly gratified by the great concourse of pupils which the high reputation of the medical school of Edinburgh brought to his lectures, his mind was forcibly impressed by the importance of his duties as a teacher. This had an effect which perhaps was on the whole rather unfortunate. He directed his whole attention to his lectures, and his object was to make them so plain that they should be adapted to the capacity of

the most illiterate of his hearers. The improvement of the science seems to have been laid aside by him altogether. Never did any man succeed more completely. His pupils were not only instructed but delighted. Many became his pupils merely in order to be pleased. This contributed greatly to extend the knowledge of chemistry. It became in Edinburgh a fashionable part of the accomplishment of a gentleman.

Perhaps also the delicacy of his constitution precluded him from exertion, the slightest cold, the most trifling approach to repletion, immediately affected his breast, occasioned feverishness, and if continued for two or three days brought on a spitting of blood. Nothing restored him but relaxation of thought and gentle exercise. The sedentary life to which study confined him was manifestly hurtful, and he never allowed himself to indulge in any intense thinking without finding these complaints sensibly increased.

So completely trammeled was he in this respect, that although his friends saw others disingenuous enough to avail themselves of the novelties announced by Dr. Black in his lectures, and therefore repeatedly urged him to publish an account of what he had done, this remained unaccomplished to the last. Dr. Black often began the task, but was so nice in his notions of the manner in which it should be executed, that the pains he took in forming a plan of the work, never failed to affect his health, and oblige him to desist. Indeed he peculiarly disliked appearing as an author. His inaugural dissertation was the work of duty. His *experiments on Magnesia, Quick-lime, and other alkaline substances*, was necessary to put what he had indicated in his inaugural dissertations on a proper foundation. His *Observations on the more ready freezing of Water that has been boiled*, published in the Philosophical Transactions for 1774, was also called for; and his *Analysis of the Waters of some boiling springs in Iceland*, made at the request of his friend T I. Stanley, Esq. was read to the Royal Society of Edinburgh, and published by the council. And these are the only works of his which have appeared in print.

The aspect of Dr. Black was comely and interesting. His countenance exhibited that pleasing expression of inward satisfaction, which by giving ease to the beholder, never fails to please. His manner was unaffected and graceful. He was affable, and readily entered into conversation, whether serious or trivial. He was a stranger to none of the elegant accomplishments of life. He had a fine musical ear, with a voice which would obey it in the most perfect manner; for he sung and performed on the flute with great taste and feeling, and could sing a plain air at sight, which many instrumental performers cannot do. Without having studied drawing, he had acquired a considerable power of expressing with his pencil, and seemed in this respect to have the talents of a history painter. Figure indeed of every kind attracted his attention. Even a retort, or a crucible, was to his eye an example of beauty or deformity.

He had the strongest claim to the appellation of a man of propriety and correctness. Every thing was done in its proper season, and he ever seemed to have leisure in store. He loved society, and felt himself beloved in it; never did he lose a single friend, except by the stroke of death.

His only apprehension was that of a long continued sick bed, less perhaps from any selfish feeling, than from the consideration of the trouble and distress which it would occasion to attending friends: and never was this generous wish more completely gratified. On the 26th Nov. 1799, and in the 71st year of his age, he expired without any convulsions, shock, or stupor, to announce or retard the approach of death. Being at table with his usual fare, some bread, a few prunes, and a measured quantity of milk diluted with water, and having the cup in his hand, when the last stroke of the pulse was to be given, he set it down on his knees which were joined together, and kept it steady with his hand in the manner of a person perfectly at ease; and in this attitude expired without spilling a drop, and without a writhe in his countenance, as if an experiment had been required to show to his friends the facility with which he departed. His servant opened the door to tell him that some one had left his name; but getting no answer, stepped about half-way towards him, and seeing him sitting in that easy posture, supporting his bason of milk with one hand, he thought that he had dropt asleep, which sometimes happened after his meals. He went back and shut the door, but before he went down stairs, some anxiety, which he could not account for, made him return again and look at his master. Even then he was satisfied after coming pretty near him, and turned to go away; but returning again and coming close up to him, he found him without life.

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2. *On Heating a Printing-Office.*

Mr. Editor,

If consistent with the plan of your Literary Journal, an early insertion of the following question will much oblige, yours, &c. Samuel Hamilton.

What is the safest and least expensive method of heating and keeping up a regular heat, in an extensive printing-office, 63 feet long, 27 feet wide, and divided into three apartments, 12 feet high, by three floors? In the rooms are always suspended large quantities of damp sheets of paper; and the heat is to be diffused, as equally as possible in each room. As a great number of workmen will be employed, and several printing-presses, it is expedient that whatever means are employed for heating the apartments, should afford the fewest obstacles to the carrying on of the business.

*** Those gentlemen who may be disposed to give information on the subject are requested to do it, either through the medium of the Literary Journal; or by letter, addressed to Samuel Hamilton, to the care of Messrs. G. and J. Robinson, Paternoster-row.

NOTICES.

At the Royal Society on the 19th inst. was read a paper communicated by Mr. Chenevix, proving that palladium which had been supposed to be a new metal, is only a composition of Platina and Mercury.

C. N. Ordinaire has edited at Paris a natural history of all known volcanoes, ingeniously represented on a valuable map which is added to the work. Without claiming or possessing any right to claim profound knowledge either of oryctognosy or chemistry, the author has given an interesting account of two hundred and five volcanoes, including two mud-volcanoes (*Volcans de boue*) one of which is mount *Makaluba* in Sicily, and the other has been discovered in the Crimea by Professor Pallas.

Doctor *Bremser*, at Vienna, has lately proposed to apply Galvanism as a method of distinguishing apparent death from real dissolution, and invented an electrical apparatus, in imitation of Volta's pile, for that important and benevolent purpose.

Doctor *Albers*, of Bremen, has transmitted to the Academy of Sciences at Gottingen, some very interesting zootomical observations on the Sea-Cow, [Trichechus Rosmanus, Linn.] and Porpoise, [Delphinus Phocena, Linn.] accompanied by anatomical preparations and very fine drawings, illustrative of the Doctor's remarks. Without these drawings we should in vain attempt to convey to our readers a clear conception of Mr. Albers' observations, and must therefore restrict ourselves to state, that they chiefly relate to the organs of sense of the sea-cow, the structure of which is as yet but little known; and the eye, stomach and epiglottis of the porpoise.

On the 11th of February last died at Vienna, *Anthony Baron Storck*, Imperial Royal Aulic Counsellor, first Physician to the Imperial family, &c. at the advanced age of 72. He was born at *Sulgau* in Swabia, but educated at Vienna. His uncommon talents and profound erudition, but particularly the good fortune he experienced in 1767, of saving the late Empress Maria Theresa from a severe attack of the small-pox, procured him the highest medical honours in the Imperial Royal dominions.

Mr. Fischer, Professor and Librarian at Mentz, has transmitted to the Royal Society at Gottingen, some interesting observations, accompanied by drawings, on fossile rhinoceros and elephant-bones found in the department of *Mont Tonnere*, or *Donnersberg*, and its vicinity. Those of the rhinoceros were dug out of a ravin or hollow way near *Dirmstein*, and are of a more massy and unwieldy shape than the elephant bones. With regard to the latter, Professor Fischer infers from the enormous size of the jaw-bone, and the peculiar conformation of the teeth, that these Osteolites (if we may call them by that name) belong to a species of elephant, specifically different from those which exist at present.

Bokunir of Pudosch, was lately presented by Alexander I. with a gold medal, with the inscription, "*For useful merits*," because he was the first who pointed out the possibility of larch-trees being conveyed by water from the department of *Olonez* to *Petersburgh*, and actually transported nine hundred trees to that city, on the river *Wodlo* and lake *Onega*.

In the fifth number of the second volume of the "*Annales de historia natural*," edited at Madrid, by *Christian Hergen, L. Proust, Don. Fernandez*, and *Ant. Jos. Cavanilles*, the last mentioned learned botanist states it as an indubitable fact, that hydrophobia in numberless instances has been radically cured in Spain, by the exhibition of a powder, prepared of *Alysium spinosum, Nepeta mutifolia, Echium vulgare*, and *Eryngium campestre*.

LITERATURE.

2. Histoire des Suisses, ou Helvétiens, &c.—*History of the Swiss, or Helvetians, from the remotest Period to the present Time. By* P. H. Mallet, *late Professor of the Universities of Upsal, Cassel, &c. 2 vols. 8vo. Geneva*, 1803. *With a Map.*

Professor Mallet, whose historical talents are already favourably known to the public by his History of Denmark, which in a short time went through three editions, has acquitted himself with equal impartiality and spirit in the composition of the work before us; the interesting history of a gallant and unfortunate people, which was *once* a prosperous, free, and independent nation. Having long resided in Switzerland and formed connections with gentlemen possessed of correct and extensive information on the Helvetic history, politics, and laws; being intimately acquainted with the language, in which the most prominent national events are recorded, and having been an eye-witness of the vile intrigues and atrocious deeds by which the ancient Helvetic Confederacy, and along with it the independence and liberty of Switzerland have been destroyed, our author has ably availed himself of these favourable circumstances, to give to his narrative the utmost veracity and correctness.

Of the times anterior to the Helvetic Confederacy he draws but a rapid sketch.

"What can the annals of those times contain that might be compared with the history of our age, of this age of lights and barbarism, of revolutions, overthrows, and enterprises, alike calamitous and gigantic?"

The history of the origin and progress of the Helvetic Confederacy begins with the eighth chapter of the first volume. It is chiefly composed after *Muller's* large historical work, but interspersed with a variety of just and ingenious remarks. A fine and interesting description of the famous rock near *Flueelen*, on which during a storm William Tell jumped out of the boat, where he left Gessler at the mercy of the waves, and of the chapel built on that sacred spot, closes in the following manner:—

"I am ignorant of the alterations which those monuments of the founder of Helvetic liberty may have experienced from the hands of foreign and armed missionaries of *another* liberty; who, after profusely paying homage to his memory, came to trample on his work, to persecute his descendants, and plunge his native land into misery and desolation."

At the end of the eleventh chapter, where the history of the Helvetic Confederacy is brought down to the year 1353, when it was already composed of eight cantons, we find the following remark:—

"I am to observe, particularly for the information of foreign readers, that they would form an erroneous idea of this *first league, or confederacy*, did they consider it as a system framed after mature deliberation, and unanimously pursued to obtain an accession of territory and power. The leading and almost sole idea of its founders was to maintain themselves in possession of ancient rights, and to secure the enjoyment of them against encroachments from the turbulent and ambitious Princes by whom they were surrounded. Their league was not even a general, uniform, and equal confederacy; it was kept up by occasional meetings and conferences on the frontiers, which

gave rise to the Helvetic Diets of the following ages. They who should consider those ancient meetings as a congress composed of representatives of the different members of the league, would be grossly mistaken. And yet I find that these erroneous ideas have been circulated and accredited by foreign historians, who pretend to see in Switzerland, and in the fourteenth century, the Achæan league, the confederacy of the Greek towns or some such federative Republic, of which the Swiss had perhaps never heard."

The Helvetic Confederacy, strengthened by the accession of Appenzel, began, however, soon to lose sight of the generous principles of its founders, and instead of being satisfied with having friends and allies, it aspired to command subjects and possess an extensive territory. This unfortunate deviation from the original purpose of that celebrated league led to civil feuds, the account of which, and of the wars against Austria, Burgundy, and the Suabian league, occupies nearly the whole of the second volume: the rest being appropriated to an interesting narrative of the circumstances which brought about the first alliance with France, and its baneful results; of the wars carried on by the Swiss in Italy; of the completion of the confederacy, by the admission of Basle, and Schafhausen; and of the offer made by the inhabitants of Franche Comté, after the death of Charles the Bold, but declined by the Swiss, to submit to the Confederacy, on condition of being maintained in the undisturbed enjoyment of their ancient rights and privileges.

"This, people," our author observes, "made the offer of union and subjection without being decoyed into that measure by intrigues, bribery and deceitful promises, nor bullied and compelled by dreadful menaces, interdiction of all trade and intercourse, misery and famine. These *glorious* means of conquest, discovered in our enlightened and philosophic age, were not in use in those Gothic times and among the Swiss, a half barbarous people, thickset with scruples of probity and honour."

Of the celebrated hermit, *Nicholas de Flue*, our author gives the following account:—

"He was a native of Underwald, where his family had always filled the most eminent stations. From his early youth he acquired a distinguished reputation of piety, candour, prudence, and ardent love of his country, to which he seemed to devote every moment of his life. In the Zurich war from 1439 to 1446, he strenuously exerted himself to allay the animosity of the contending parties, and to ward off the cruelties which it but too often produces. In the war against Sigismundus of Austria, he obtained universal admiration by the wisdom of his counsels, and the undaunted courage he displayed in the field of battle. In vain did his countrymen endeavour to prevail upon him to accept the place of *Landamman*, or chief magistrate of the canton. After having rendered them the most signal services, he quitted the busy world, and retired into a small cottage, which they built for him in a wilderness. A small chapel, constructed near the hermitage, and enlarged and enriched by the devotion of the Faithful of the following ages, marks at present the spot where stood the peaceful habitation of that excellent man. It soon became the object of profound and pious veneration, according to the spirit of the times, laudable in its origin, but frequently carried too far in its effects. *De Flue* was considered as a saint after his death: but his life, entirely devoted to the welfare of his countrymen, his successful efforts to allay their passions, to reconcile and enlighten them on their true interests, and the practical virtues, of which he set the example, exalt him far beyond the multitude of saints whose devotion, altogether contemplative and superstitious, remained useless to the world."

The third volume is employed in relating the further occurrences of the wars in Burgundy and Italy, the conclusion and results of what was called the *perpetual peace* with France, the commencement and progress of the change of religious opinions in Switzerland and the neighbouring countries, as far as in the latter point of view it affected the Helvetic confederacy, and the acquisition of Franche Comté by France, and of Neufchatel by Prussia. On the battle of Dreux, where the Swiss, under the command of Lewis Pfiffer of Lucerne, formed a square, inclosing Charles IX. and his court, and conducted them safe to Paris, our author makes the following remark:—

"Providence had decreed that the French monarchy should at that time be saved by their valour. It was otherwise on another occasion; but even then showed that the Swiss scorned corruption, and preserved pure and unsullied the glory of being faithful until death to Princes whom they had sworn to defend."

The volume closes with the following observation, suggested by the succession of the House of Prussia to the principality of Neufchatel:—

"It is a circumstance peculiarly worthy of remark, that the King of Prussia, in common with the rest of the competitors, had previously accepted the *general* or *preliminary articles*, which determine the prerogative of the Prince, and the rights of the people. The constitution, resulting from those articles, is very complicated, and entirely destitute of the nice uniformity so dear to the *speculative legislators* of our days; yet it secures, in spite of their theorems, to the States and people of Neufchatel a high degree of liberty, and makes them enjoy all the rights and privileges of the Helvetic Body."

The fourth and last volume relates, in the first and second chapter, the civil war carried on by several Swiss cantons, on account of the country of Toggenburg, and the negociations, which led to the general alliance with France, concluded in June, 1777. The third chapter presents a "*tableau*" of the general state of Switzerland at the end of the last century, drawn with the strictest impartiality and regard to truth. Our author readily acknowledges that the Helvetic Confederacy was imperfect and defective, destitute of a public fund appropriated to the maintenance of a sufficient public force, devoid of unanimity and a general will, and feebly supported by an implicit reliance on that ancient valour, which had been considerably impaired by a total change of manners and a predominant taste for manufactures and trade. But he observes also, and we think very justly, that the Swiss, in point of true personal liberty, perfect security both of persons and property, mildness of government, and general prosperity, were inferior to no people upon earth. Agriculture was improved with uncommon ardour and success; the sciences and arts were honoured, cherished, and protected; religion, parental authority, justice, and the rights of humanity were universally respected, and the people enjoyed, under a mild and paternal government, peace, prosperity, and plenty.—

"Such were the Swiss at the end of the last century; such was that quiet, yet gallant nation; just towards other

countries, and peaceful at home, more happy under a form of government, under which Switzerland had flourished for ages, than other nations under studied distributions of power, under that composition of sovereignty so highly extolled, where they have sought so long for an equipoise, which has never been found.

"Yes, the happiness of the Swiss,* the simple result of virtue and good sense, was worthy of the envy even of that nation which has presumed to force upon them its lessons and example; a nation which, though the world resounds with its glory, *has hitherto rendered neither any other nation happy, nor itself.*"

The fourth and last chapter describes the disgraceful and horrid transactions, still recent in our memory, by which the ill-fated Swiss have been robbed of their well-earned liberty and independence. Our limits do not permit us to follow our author through the disgustful series of those scandalous transactions, from the massacre of the Swiss guards to General Brune's entry into Bern, where "that missionary of philosophy," sunk to a vile tool of merciless tyrants, thirsting for gold and blood, seized upon the magazines, arsenals, riches, and spoils of a disarmed and defenceless people. We shall, therefore, confine ourselves to observe, that by our author's account, as was partly known already from public reports, the *glorious* conquest of Switzerland was considerably facilitated to the *great* nation by the unaccountable irresolution of the supreme Council of Bern, by the jarring interests and counsels of the democratic faction, headed by *Frishing*, treasurer of Bern, and the patriotic party, guided by the famous *Avoyer Steiger*, the former advising concession and submission, and the latter insisting on the necessity of an honourable resistance; and lastly, by the peace or rather armistice of Campo Formio, which enabled the French directory to let loose part of its unemployed armies against Switzerland.

Two appendixes are added to the work, the first of which contains the various projects of *perpetual* constitutions framed for the Helvetian Republic; a proclamation and letter of General Brune, from which we learn, that in March 1798, there existed for seven days a *Rhodanic* republic: a letter from a Swiss revolutionist at Paris, who congratulates his countrymen on the gracious condescension displayed by the French government in sending them constitutions *ready made* for their acceptance; and a memorable memoir, addressed to the minister of the French Republic in Helvetia, by the cantons of *Uri, Schwitz*, and *Underwald*, on the 13th July 1802, wherein they declare in a firm and manly tone, that they will never submit to any other form of government, than that which has been handed down to them by their ancestors, and which for centuries has rendered them prosperous and happy. The second appendix comprizes the hereditary league of 1510, between Burgundy, Austria, and the Swiss cantons; the treaty of a perpetual peace with France of 1517; the treaty of peace concluded by Zurich and Bern, with the Catholic cantons, in August, 1712; and the treaty of a general alliance with France of 1777.

* For a very interesting picture of the truly enviable situation of the Swiss at the period alluded to by our author, we beg to refer our readers to the preface of the Rev. Mr. Munkhouse's valuable translation of Durand's "*Année Evangelique.*" p. xxiv.

2. *Grammaire Philosophique; ou, la metaphysique, la Logique et la Grammaire réunis en un seul corps de doctrine, par* Mr. Thiebaut, 2 *vols.* 8vo.

A Philosophical Grammar, or Metaphysics, Logic, and Grammar united in one system, by *Thiebaut.*

The author, formerly a Professor in the Military School at Berlin, and now in a similar station in one of the central schools at Paris, was already known in England by his *Treatise on Style*, in 2 vols. 8vo. a work rather noted for an uncommon prolixity of detail. The work now under review is intended to connect in one body, three branches of the philosophy of the human mind. The attempt, as far as it may concern the instruction of young people in the principles of grammar, will, we doubt not, prove highly beneficial; but we fear that the learned, such among them especially as are accustomed to methodical researches, will object to this confusion of three sciences, each of which claims its own department, however close may be its connection with the other two. The work possesses the merit of considerable perspicuity of style, although sometimes incumbered with scholastic terms. We regret that Mr. Thiebaut has exhibited even in this performance that prolixity of which he was accused in his Treatise on Style; and some of its readers will possibly conclude that a comprehensive mind would have compressed it into one volume, smaller than either of the two of which it now consists.

3. *Further Vindication of Mrs.* Macaulay Graham. *In Reply.*

Mr. Editor,

I was content, on the appearance of the first answer to my vindication of Mrs. Macaulay, to think with you that sufficient had been said on the subject. Since that you have admitted another letter. This I think opens a claim to a reply. I had intended one sooner, had not various occupations of my time and thoughts intervened.

What I shall now say will be short. When a book is published with the avowed name of an author, and the person whose name is used is known to be living, and to claim to be the author, strong evidence to the contrary is required. And much stronger if the sentiments of the person are in known correspondence with the work; if the abilities of the person are adequate and congenial to the undertaking; if the turn and manner are in the tone of character which distinguishes the individual, and if the spirit of that individual be above the suspicion of stooping to a false assumption of literary honours. All this, and more, concurs to stamp the history and the other works published by Mrs. Macaulay (afterwards Macaulay Graham) with a proof of authenticity, as being truly hers, as decisive as can belong to the histories of Thucydides or Xenophon, of Livy, or Sallust, or Tacitus. It is curious then to find a surmise as if two persons had the merit of this uniform historical composition, which has so clear and peculiar a character manifesting it to be the production of one mind; and these two persons to have maintained this uniformity at distant periods; long after the death of the first. And on the collateral point, the name of Mil-

ton, let it be remembered that it was not forced by me into this subject: as others have forced a name once justly, and long and highly honoured; and of which, since the last punishment which the law can inflict has been executed, ought not now to be introduced for the purpose of opprobrious reflections. What was remembered and said in France from the tribunal on one of the worst trials, in her worst times, that "a person on whom the sentence of the law has passed, belongs from that moment only to calamity and humanity," is a truth which cannot be impaired by the medium through which it was conveyed.

But upon this new topic I shall say no more, otherwise I should observe, that a man who is related to have said, the moment after his conviction, that "his whole soul was starting into a new state of existence," could not well be an atheist; and that an attainder on one charge, however great, does not warrant the imputation of another.

I have only the simple and short duty of proving that what I have said of Milton was pertinent to the justification of Mrs. Macaulay; to whom it was objected that she had not given her highest admiration, where it has been too exclusively paid, to the poetic part of his character. You have anticipated, by quoting Mr. Hayley, part of what I might have said of the merits of his prose. And I wish such as have condemned his, and the prose of Mrs. Macaulay, without reading either, to be informed that the *Areopagitica* of Milton, *in defence of the Liberty of the Press*, and his tract on *Education*, would of themselves have justified, not in my opinion only, more than all that I have said. And let those who think Milton a *flatterer*, read his unreserved admonition to Cromwell in the *defensio secunda*. Let those who speak of his accepting a place, reflect that he served his country in an office always arduous and important, and then unusually so. That he served it as Hale did on the Bench, as Judge, and Blake on the ocean, and without having the same objections to the government then subsisting which they had; whom, great as they were, I cannot think greater than Milton, even if he had not been a Poet.

I believe that the tract on the *Liberty of the Press* contributed essentially to the support of one of the main pillars of freedom and the constitution. And I think that the tract on *Education* has much contributed to a more enlarged, generous, and useful sense of the end of education, and the proper means to that end. Much of Milton's views have been, and much more might be, practically adopted with equal benefit to the system of education in this country, than the improvement of which scarcely a greater benefit can be rendered to society. I think therefore, that in her veneration for Milton, independently of his poetic excellence, the admirable woman whom I have vindicated was amply justified; and that the defence has kept within its just bounds.

I am yours, &c.

CAPEL LOFFT.

MR. EDITOR,

The Greek epigrams are acknowledged by the best critics to be much inferior to those of Martial and other Latin poets. In all that large collection which goes under the name of Anthologia, we find very few that contain much point; and where there is any, it is not always of the happiest sort, as in the following instance:—

Καρτερὸς ἦν πολέμοις Τιμοκρίτος, ἔ τόδε σᾶμα.
Ἄρης δ' ἔκ ἀγαθῶν φείδεται, ἀλλὰ κακῶν.

This is Timocritus' the warrior's grave;
Mars lets the coward 'scape, but takes the brave.

To say that Mars spares the coward and kills the brave, is holding out poor encouragement to soldiers, and is certainly not the way to make them fight well. Nor is it true; for in the hour of battle the man of courage, by firmness and presence of mind, averts the impending stroke of death, which falls upon the scared and lagging coward. I would therefore give a different turn to this epigram, and say:

Timocritus lies here—*one* brave man died,
By Mars cut off—but *countless* cow'rds beside.

I hope to see this better expressed in Greek, by some of your classical correspondents.

P.

NOTICE.

At the Meeting of the Society of Antiquaries on Thursday last, a picture of Lord Egremont's with a Dutch Inscription, was exhibited, and the inscription explained. On the same evening, the Rev. Dr. Markham, Dean of York, and John Spencer Smith, Esq. were elected members.

Mr. Landseer, engraver to his Majesty, is about to publish a series of Portraits and Views in the Pelew Islands, from drawings taken on the several spots by Mr. Davis. They will be illustrated by topographical information which will include that part of Capt. Wilson's Voyage which preceded his arrival at Macoa.

Paris.—The "*Musée des Arts*," in the Louvre, attains, under Denon's direction, every day a higher degree of perfection. Systematically arranged are already—1. 900 Choice paintings of the French, Flemish, and Italian schools; 2. 150 Marble Statues and other productions of ancient sculptors; 3. 450 Drawings of eminent artists, selected from a collection of 20,000. The Museum contains besides a great number of paintings, marble works, vases and precious articles, which are to be successively arranged. The Chalcography, united with the Museum, contains upwards of 4000 plates. Five days in the week the galleries are open for young artists and travellers, and every Saturday and Sunday, from 10 to 4 o'clock for the rest of the public. The hall destined for the exhibition of the works of living artists is open every day from the 15th Fructidor to the 15th Brumaire.

A Literary suit was lately decided at Paris, wherein *Baillieul* was plaintiff, and *Fantin Desoudoards* defendant. The former complained of the latter having asserted in his history of the French revolution, that he advised the executive government to order the individuals to be shot, who after the 18th Fructidor were sentenced to transportation. *Fantini* having produced a memoir of the late Director *Carnot*, from which the offensive passage had been extracted, *Baillieul* was non-suited.

Mentelle, the celebrated French geographer, on presenting his "*Atlas des Commerçans*" to Madame Louis Bonaparte, accompanied it with the following verses:—

Lorsqu'il aura grandi ce charmant nourrisson
Montrez-lui sur ma carte, intéressante mère,
Le lieu où l'on *bénit* la gloire de son père
Il connoîtra bientôt l'un et l'autre hémisphère.

The compliment is finely turned, but we [illegible] "*charmant nourrisson*" will know but very [illegible]

hemisphere, should the "interesting mother," point out to him the places only where

"Blessings meet the glory of his name."

Marcel, late director of the Republican press in Egypt, has succeeded *Duroy Laverne* as director of the National press in the Louvre. The following are the most prominent works printed there under *Duroy's* direction.—"*Notices et Extraits des Manuscrits de la Bibliothèque Nationale*, vol. 4, 5, and 6, containing more or less Greek and Arabic. The 7th volume, which is not yet completed, contains a considerable part of the astronomical tables *Ebn Younis*, by *Caussin*; "*Hymne à l'occasion de la Paix, par le C. Flo Lec.*, in Hebrew, French, and German; *Dictionnaire abrégé François-Arabe, par I. F. Ruphy*; *Chrestomathie Arabe, à l'usage des Elèves de l'Ecole spéciale des Langues orientales vivantes, par Silvestre de Sacy*; *Chrestomathie Persanne, &c. avec un Vocabulaire Persan-Francois, par Langles*; *Monumens antiques inédits par Millin.*

Mr. von Kohler, Russian counsellor and librarian to the Imperial library at Petersburgh, is preparing for the press a Description of Antiques wrought in Silver, which at different periods have been discovered in the province of *Perma*, of which the greatest part since 1558 belongs to the noble family of Stroganov, in a district watered by the river *Kama*. The finest and most remarkable of those antiques was found in 1780, in the vicinity of the village of *Sludka*; it is a silver bason, 10 English inches in diameter, representing the contest for the arms of Achilles. The diameter of the ring on which it rests is 4 $\frac{1}{16}$ inches, the height is somewhat more than 1' inch, and the weight 2 pound 94 solotnik.* The style of workmanship stamps it as the production of an artist of the best period of the Grecian art. It bears a close resemblance to the supposed shield of Scipio, described by *Millin*; but with this difference, that the latter is embossed work, while the bason in question, which is at present in the rich museum of Count Stroganov, is cast in a mould.

Schoel and Co. booksellers at Basle, have published the long expected poem of the celebrated *Abbé Delille*, entitled, "*La Pitié*," in 8vo, 12mo, and 18mo. They who possess "*L'Homme des Champs*," and "*Les Jardins*," by the same author, are therefore at liberty to choose the size which best suits their editions of those charming compositions. The whole of the third canto is devoted to the history of the ill-fated Louis XVI. and his unfortunate family.

In the district of the village of *Kuick*, three miles from *Grave*, in Holland, an ancient gold medal has lately been found, of which we have received the following description:—The medal represents a laurelled Emperor's head, with the inscription

ANTONINVS AVG....VS PP IMPII

On the reverse is a female figure, probably representing Fame or Victory, of which the lower part up to the hips is well preserved, but the upper part worn away, with the following legend:

TRIDT . . . . . IIII.

The first three letters are very distinct, but the last two, although they appear like DT, cannot be clearly discerned, which is also the case with the above IIII. Where the dots are placed, the letters are entirely effaced. The characters of both legends perfectly resemble our modern Latin capitals with the exception of the T, which appears in form of ⊥.

"The coin itself does not exceed in size that of a *Dubbeltje*, or two Stuiver-piece (nearly equal to that of our shilling) but it is soldered to a gold border, which enlarges the whole medal to the size of a Dutch dollar (or our crown-piece). The edge of this border is surrounded with eyes, through which a gold wire is drawn. The whole of the upper side was set with red, green, and white stones, which were taken out by the goldsmith, who bought the medal of the finder, for 47 guilders, (about 4¼ guineas) its intrinsic value, and which crumbled into dust, as he took them out. The reverse of the border is covered with garlands wrought in gold. The workmanship of the whole medal is exquisitely beautiful and neat. Near it an ancient sword was found, so much injured by rust, that, when taken up, it fell in pieces."

* 96 Solotnik make one pound.

The Vice-President of the Italian Republic has lately issued a decree relative to the publication of literary productions; whereby it is enacted, that in future no book shall be published without the author's and publisher's name being expressed in the title-page; and further, that no book shall be printed, tending to revile and injure the established religion; public morals; the constitutional liberty of conscience, and religious freedom; the respect due to the magistrates and officers of the state; the good understanding with foreign powers; and the honour of private individuals. All dramatic productions, periodical publications, both foreign and domestic, and all books of whatever tendency and description, which arrive from abroad, shall be examined by the public Censors and licensed or prohibited, as his Censorial Worship shall see fit.

MANNERS.

IT would have very much facilitated our labours in this department, considering its vast extent, if, when our senators, in their wisdom, lately ordered the people to be numbered, they had at the same time followed the plan of the Roman Census, which not only took in the *numbers* of the people, but also an inquisition into their manners. But owing to the neglect of this very important, and very comprehensive precaution, the lists of population which have been published are already forgot, as other dry arithmetical statements, whatever their original design, soon must be in a country where novelty and variety are in perpetual demand: whereas, if the persons employed to discover the *quantity* of the people, had also been enjoined to specify their *quality*, the result would in all probability have been a source of permanent materials, and lasting entertainment for the philosopher and the moralist. Anxious, therefore, as we are on all occasions, to second the measures of government, we cannot avoid expressing our regret, mixed with the *politesse* of gentle censure, that so favourable an opportunity was lost. Truly as the matter stands at present, it seems to us of no more consequence to know how many people there are in a city or town, and to know no more, than if an eminent scholar, with the contents of whose library we wished to be acquainted had, instead of sending us a catalogue *raisonnee*, contented himself with assuring us that his shelves sustained the weight of ten thousand volumes.

It must be allowed, indeed, that some kind of subdivisions were attempted in the lists to which we refer; such as of persons concerned in trade and in agriculture, but these "general heads" are too extensive for the many divisions and minute classifications which the present state of manners requires. This wholesale information might probably be satisfactory

in those days of unmixed *genera* and *species*, when a tradesman was nothing but a tradesman, and a farmer nothing but a farmer; but since to the duties of the shop and the plough are superadded the numerous avocations, amusements, and now and then some of the accomplishments of the *gentleman*, or the man of fire and spirit, it becomes highly necessary that a very different sort of classification should be adopted, in order to answer the purposes of the curious inquirer into the history of the human species.

It appears, however, so extremely improbable that another opportunity, such as we have lost, will present itself for many years, that we shall not increase our readers' disappointment or chagrin, by enumerating all the improvements that might have been introduced at the late Census, if a committee of Naturalists had been appointed to classify the people according to the Linnæan system, or any other that might appear more convenient both to master and pupil. A few weeks ago, we might have dilated on the subject, but the present crisis demands that we should suppress all discontent, and bury all animosities, until we have given ample satisfaction to that non-descript personage who can be classified into no system, and who seems to have taken it into his head, that he has talents and virtue to govern the whole human race.

Yet, dropping our respect for this vast and immeasurable potentate, to return to the subject more immediately in hand, we are compelled to say, that it is truly shameful MAN should be so neglected, as to be mentioned only in the gross, while for every herb, and every insect, and every pebble, we can assign the specific uses, describe the appearance, and the exact part it fills in the creation. If we shew to a Naturalist an extraordinary bird, or worm, he will immediately inform us what is its name, where it came from, how it is found here, what are its uses, and in a word, to what class of useful or useless articles it belongs. But if we shew to the same gentleman nine-tenths of the men and women we meet in the street, or in public places, he will confess his ignorance by telling you that "he knows not what to make of them." And why, it may be asked, does he not know, but because no pains have been taken to reduce the human species to order, and because an unaccountable prejudice has gone forth, that men and women are all alike, or, in other words, that the human *species* is not divisible?

There is one class, however, which, if the Census lately taken had been such as we now propose, would have appeared very considerable in numbers, and of which the natural history would have afforded much entertainment. We allude not to men of fortune, who live by hereditary property; not to the clergy who live by their benefices, not to the physicians and lawyers, who live by their fees, not to the politicians who live by their salaries, not to the landed gentlemen who live by their estates, not to the tradesmen who live by their bargains, not to the geniuses who live by their wits, and not to the labourers who live by their industry; all these are for the present entirely out of the question, although our readers must plainly see, that, if they had been divided and subdivided into smaller and smaller classes, we should have better known what mankind are about; but we allude to that class who live "THE LORD KNOWS HOW," or rather, for we do not wish to encourage profanity of phrase, who live "nobody knows how."

To have ascertained the exact number of these persons would have been a desirable step in our progress towards their history, but that, owing to the cause to which we have adverted, is impossible. It is generally thought they are very numerous, and it is certain that they inhabit only one small spot in this kingdom, usually called Westminster. Their residence there does not, however, exclude their occasional excursions to Bath, Brighthelmstone, Tunbridge, &c. and other places remarkable for salubrity of air. But Westminster is, properly speaking, the head-quarters, or grand field of action. A few have tried to live in the city of London, but the construction of its narrow streets and houses is not favourable to the breed, of which it is a particular *trait*, that they are always alarmed at the thoughts of *confinement*.

Of this singular class, there are few or no memoirs existing that can shew in what manner they subsist; their resources, however, must be different from that of any other species of animals. Whether they are a class of philosophers who despise riches, we know not, but it is certain they possess none, and yet contrive to enjoy not only the necessary comforts, but the most fashionable luxuries of the age. But in what manner these are procured, is the grand secret which is imparted only to the members of this class; and hence they are very aptly described as a people who live "nobody knows how."

With respect to riches, indeed, it may be said, that some of them do possess a certain share; but such instances are either exceptions to a general rule, or in their fullest extent, they will not invalidate what we have just advanced. If, for example, one of this class possess a property of five hundred pounds a year, he will live at the rate of two thousand; if he possess but an annuity of two hundred, he will do the same; so that the *quantum* of income bearing no proportion to the expenditure, it becomes still a question, and a wonder, how ends so great are accomplished by means so disproportionate.

In our ignorance of this matter, we must therefore consider those who "live nobody knows how," as a set of geniuses of the first class, men who have continued to do what the world in general, after repeated experiments, has found impossible. A few years ago, in a farce played repeatedly on our stages, a song was introduced, in which are these lines—

"How happy the soldier that lives on his pay,
"And spends *half a crown* out of *sixpence* a day!"

The audience heard this composedly for many years, without ever inquiring into the meaning of it; but had it occurred in SHAKSPEARE, what a glorious subject for investigation by the commentators! THEOBALD would have declared his profound ignorance of the method of extracting half-a-crown out of sixpence. WARBURTON would have explained the whole in a metaphysical inversion of the position that *omne majus continet in se minus*.—STEEVENS would have ransacked fifty old pamphlets to prove whence SHAKSPEARE borrowed the hint; and MALONE,

Ritson, Mason, and Henley would have plentifully administered various readings, while Sir John Hawkins would have thrown wonderful light on the subject, by exhibiting a true copy of the *music*; and after all this labour, the text and the context, the author and the reader, would have been exactly on the spot where the commentators found them.

This, however, is the secret with those who live "nobody knows how," and with whom it will probably long remain a secret; although, that they have some method of communicating it, seems plain from the class having of late years much increased in number and consequence. That it is a secret of great importance is scarcely less obvious, and pregnant with ingenuity; for what can be more important or more ingenious than for persons who "have no visible means of getting their bread," and are therefore, in Justice-of-peace language, vagrants or vagabonds; what, we repeat, can be more ingenious than to produce all the effects of wealth, without the intervention of the precious metals, or even of paper currency (to which they seem to have an equal aversion), and to procure the most extensive credit on the smallest possible capital? Some indeed are said to use a species of *brass* coins which they can sometimes pass for the best gold, but this we consider as apocryphal, or perhaps scandalous.

Certain it is, likewise, that they perform all the operations of buying without the smallest thought of paying. Payments, which are common among other classes of society, are with them either unknown, or reckoned disreputable, and they have a maxim against payments which they are very fond of repeating, namely, "that paying tradesmen is but encouraging them." They carefully, therefore, avoid encouraging that in others which they disdain to practise in their own case, and this, it is said, they rank among the *consistencies* of their character. And it is very singular, and almost incredible, if any thing were incredible in days when wonders are ceased, that those persons with whom they deal in this anti-reciprocal traffic are more ready to catch at and obey their orders, than they would the orders of those who make purchases in the old way. This, however, is not to be ranked among the consistencies of *their* character.

Another circumstance in the conduct of those who live "nobody knows how," is, that however averse to those exertions which employ both mind and body in the acquisition of wealth, and although seemingly living in a state of sloth and inactivity, they are sometimes very deep speculators, and at all times are partial to those bold strokes which astonish men of quiescent tempers, and level pursuits. From this spirit of enterprize, they have often been known by the name of Adventurers, undoubtedly an honourable appellation, since it implies the absence of fear, and that departure from the common trammels of human action, which marks the true genius.

With respect to fear, indeed, it is a passion to which they appear to be total strangers. Whence their courage arises, is among the other *arcana* of their class, and we must leave it as an inscrutable mystery: but surely none will deny them the character of real courage, when they consider that they not only expose themselves, in common with other men, to the accidents of fire and water, by land and by sea, but to the whole statute and criminal law of their country. Hence they frequently become martyrs of persevering constancy, and undergo with consummate philosophy, and genuine apathy, scourgings, imprisonments, banishment, and death itself. Perhaps no class of men are environed with more dangers; they can call nothing their own that seems to be their own; their sleep is liable to be disturbed; they are subject to insults when they walk the streets, and are often arrested in the midst of their most prosperous career.

It has already been stated that they must, in the nature of things, be geniuses; but they have not often favoured the world with works of literature. A few have indeed occasionally taken up the pen, but they have been found to handle it very awkwardly, and they have this singularity, which is probably owing to deep thinking and absence of mind, that they are often, in writing even short notes, inclined to sign another man's name rather than their own. This oddity of manner is, indeed, not general among them, but there are many instances of it upon record, and we thought it our duty to introduce it among those scanty memoirs of this remarkable class, although the circumstance be not strictly reconcileable with common sense.

It now only remains to be added, that there are females as well as males, who live "nobody knows how," and the greater part of them are ladies who have been left by their husbands in a state of widowhood, with every capacity for genteel and high life, except the means of supporting it. In living upon this plan, they are equally expert with their rivals of the other sex, and afford another proof that sexual difference is a heresy justly exploded by the Wolstonecrafts of the day. It is also highly honourable to them, that notwithstanding the communicative disposition attributed to the sex in general, and that aversion to secresy, for which, perhaps with some small reason, they are now and then censured, they no sooner join the class we have attempted to describe, than they realize Mrs. Centlivre's dramatic speculation, and exhibit The Wonder! A Woman keeps a secret!

We have thus endeavoured to collect a few straggling *memoranda* of a class of the human species, who are certainly objects of great curiosity. We might have enlarged the article by a catalogue of names, but these are too well known to require recital, and are besides written by authority on the books of sundry very eminent tradesmen in that part of the metropolis where they chiefly reside. They are even visible in the vile scrawls and pot-hooks of butchers and bakers. We might also have appended some particulars respecting the religion and last end of those persons who live "nobody knows how," but the one we never could discover, and the other is too notorious to require that this paper should be extended farther.

R. S.

POLITICS.

On the War with France.

OUR object in the following discussion is to exhibit as clear ideas as we are able of the different questions involved in the great business which at present occupies all men's thoughts and conversation, and to lay before our readers the facts and principles which afford the basis of a decision, in that order and form, which we conceive to be best fitted to enable them to form their own opinion.

The readers of this work will no doubt anticipate several of our thoughts with regard to the crisis to which affairs have at last been brought. The enthusiasm with which we have contemplated the rapid march of improvement promised by the present state of society in Europe, cannot fail to have suffered a painful depression by the interruption which the waste, disorder, and unsocial passions of war threaten to the object of this favourite expectation. The intercourse of nations, and that communication of ideas and inventions, which accelerates the improvement of all, is again to be disturbed. That exchange of commodities which gives its life to industry, and multiplies the means of subsistence, of enjoyment, and of power to the species, is to be interrupted. The accumulation of ages, those sources of improvement, which it was so fortunate to have collected together, are going to be squandered by the fury and mischief of a few years. Is there any one, having a mind capable of ascending to these great and comprehensive considerations, but must join with us in lamenting, with the deepest sorrow, the unfortunate situation in which the affairs of Europe are at this moment placed?

Our readers, however, we flatter ourselves, are fully prepared by the information which we have already laid before them, to form no desponding conclusions with regard to their own country. For though all must suffer, if that contest with which Europe is threatened shall actually ensue, we shall certainly suffer less than any other nation engaged in it. The riches and industry of Britain are what alone have at all times enabled it to contend with a country so much superior to it in population and territory as France. But to what a degree have the riches and industry of Britain increased during the last twenty years? On the other hand, what waste has been committed in France since the commencement of the revolution? We beg our readers to call to mind the authentic documents which we have submitted to their consideration respecting the state of the agriculture, of the manufactures, of the condition of the people in France. And then, surely, they will be at no loss for the conclusion, that if the produce of our industry enabled us at any time heretofore to balance the physical resources of France, much more will they do so now. The reason is irresistible. Physical resources are impotent without the aid of those which we owe to the hand of man; and such is the force of the resources derived from the hand of man, that, supplied with them, small physical resources easily become an overmatch for the greatest.

The circumstances which have led to the present eventful posture of affairs come now to be considered by the inhabitants of this country; and a conclusion formed to whom the blame of it is to be attached, and what conduct it is prudent for this nation to pursue. We shall first take that point in which we are persuaded the inhabitants of the British empire are all agreed. We shall next consider those concerning which their opinions are divided.

Without pretending as yet to say whether or not the conduct of France has been sufficient to provoke hostilities, we shall not probably be contradicted in saying that it has been such as to provoke disgust, dislike, suspicion, and alarm. France has extended her boundaries while at peace with us, without any regard to the sentiments entertained in this country of such extension; as if a great sister kingdom deserved no consideration in the plans of her neighbours. France has advanced her encroachments with an impudence of pretension, and a disregard even of the semblance of justice towards her neighbours, such as is scarcely known in the practice of civilized nations. It is sufficient to name Holland, Switzerland, Italy, to suggest abundant proof of this assertion. France, in the time of peace, while she was placed by this country on the same footing with every other friendly state, preserved the laws enacted against our trade in the fury of the last war, executed them even with additional rigour, heard the remonstrances urged by this country one after another against the abuse of British subjects and property, and paid attention to none. While she behaved in this manner towards British trade, not satisfied on the other hand with complete protection in our ports, she must send commercial agents, who, it was soon discovered, had the additional charge attached to their mission, of being military spies and informers. At the same time her government, in their complaints against the liberty of the press, and the asylum afforded to the French emigrants, exhibited a tendency to irritation with regard to this country, a wish to find fault, utterly inconsistent with the spirit of conciliation and concord. Not satisfied with this, that government thought proper, in an official paper addressed to the legislative body, signed by Bonaparte, and published to all Europe, to charge England with designs inimical to peace and to the independence of Europe, and with assurance to boast that, nation to nation, Great Britain was not able to contend with France. An article was published in the official paper of that government charging the King of Great Britain with being the instigator and rewarder of assassins. To crown all, an accredited agent was sent out to traverse and explore a country, with regard to which it was known that we entertained extraordinary jealousy, and which, in the nature of things, can only be of importance to France as a means of annoying us; and as if they no longer wished their hostility to be unknown, the report of this agent, disclosing fully their designs upon Egypt, is, with a sort of ostentation, published to the eyes of all Europe, immediately upon his return.

What, on the other hand, does Bonaparte himself bring against this country as a balance to these charges? The abuse of the press, the encouragement afforded to French royalists, and the retention of Malta. And is Bonaparte foolish enough to conceive

that Europe, that France herself, on a review of this balance, will believe him that it is England which has provoked the present rupture, that England wishes for war, that he wishes for peace, and that he would have been willing to have made the greatest sacrifices to England, would she have cordially co-operated with him for that object?

The first two of the circumstances against which Bonaparte brings his complaint are so insignificant, as must lessen him in the estimation of his own country and of all Europe. Must the government of this country, indeed, be reckoned insincere in its professions of peace, if it interfere not with the liberty of the press, and do not banish the unoffending emigrants! It would have been much better policy in Bonaparte, if he knew that his power rested on so feeble a foundation as to be shaken by the British news-papers, and a handful of miserable exiles, to have concealed, than to have published the fatal truth; and by the justice and beneficence of his administration to have acquired that place in the hearts of his countrymen, which he was conscious that he did not hold. What a miserable compromise was that proposed by this chief of a great nation to the British government!—Do you prohibit all discussions of my administration in your country, and I will prohibit all discussions of your administration in mine! This is a short way to suppress all exposure of the misbehaviour of governments, from which the race derives so much advantage. It is dangerous for the subjects of an arbitrary government to speak against its abuses; and if, by an infamous compact between the different governments, the subjects of one shall not be permitted to speak of the abuses of another, there is an end to the most salutary and gentle of all checks upon unlimited power, the control of shame, the dread, which often subdues even the worst of men, of encountering the unfavourable sentiments of mankind. In Europe, where the nations all resemble one another in manners, and in civilization, where their intercourse is great, and where information of what is done in each is fully communicated to all, this check is powerful: and the princes in Europe stand in awe of the tribunal of opinion before which their conduct and character is brought to impartial judgment.

But another thing Bonaparte ought to have known, and it is wretched ignorance in him and his ministers not to have known, that the liberty of the press is established in the laws of this country, and that the government of the country possesses not the power, either of altering or of trifling with these laws; nor is it less contemptible in them not to have known that it is established in the hearts of the people, and that every order of men, from the highest rank of peers to the humble one of labourers, would join together, and shed the last drop of their blood to preserve it, should it be attacked by either foreign or domestic foes. The law of England with regard to this subject is, that any man may print, and publish whatever he chuses; but the law punishes injury done to any man, or to any body of men; if any thing printed and published therefore be guilty of this injury, the author, printer, and publisher may be subjected to the penalty which the law appoints. This regulation is found sufficient for the protection of our own government and people; this protection is afforded to other governments; and we cannot submit to a limitation of our just rights to give them any greater.

No man can desire to see the principles which respect this important part of the British constitution better expressed than they were by Lord Hawkesbury, in his representation on the miserable complaint of the French government. From the mouth of a high officer of the crown such sentiments are peculiarly valuable, because it is the highest proof how deeply they are rooted in the minds of the whole people, when those of them whose situation is the least favourable to the culture of these principles, are nevertheless found to be thoroughly seasoned with them. "I am sure," says Lord Hawkesbury to Lord Whitworth, "you must be aware that his Majesty cannot, and never will, in consequence of any representation, or any menace from a foreign power, make any concession, which can be in the smallest degree dangerous to the liberty of the press, as secured by the constitution of this country. This liberty is justly dear to every British subject."

The reasoning employed by Mr. Otto to urge an interference with the liberty of the press, is so curious that we cannot forbear stepping a little out of our way to examine it. "If the British government, says he, tolerates censures upon the acts of its administration, and the personal abuse of the most respectable men, it does not suffer even the slightest attempt against the public tranquillity, the fundamental laws of the empire, and the supreme authority which arises from them." It prohibits attempts against the public tranquillity, the fundamental laws, and the supreme authority exactly in the same way as it prohibits them against the character of respectable individuals, by punishing, after they have been committed, attempts which the law has previously defined and declared unlawful. It prohibits attempts against foreign governments exactly after the same manner. "Every nation," continues Mr. Otto, "is at liberty to sacrifice any advantage whatever in its interior, in order to obtain another to which it attaches a higher value; but the government which does not repress the licentiousness of the press, when it may be injurious to the honour or the interests of foreign powers, would afford an opportunity for libellists to endanger the public tranquillity, or at least the good understanding that forms the basis of it; and whenever such serious injuries are continued in a regular and systematic manner, doubts must arise as to its own dispositions." If this sentence have a meaning, it must be this; that though the liberty of the press be an advantage, peace with our neighbours is a greater; that the criticisms on foreign governments permitted by the liberty of the press is inconsistent with that peace; and a continued series of criticisms unfavourable to a foreign government raises doubts concerning the disposition of the government which permits them. So then we cannot have peace with Bonaparte without giving up the liberty of the press; and Bonaparte cannot think well of the disposition of the English Government, as long as the English press abuses him. The declaration is explicit, and we are obliged to him for it. The

question of peace or war is then decided. For England is not of opinion with Bonaparte that peace with him is a greater blessing than the liberty of the press, and it will consent to war with him as long as he lives, rather than diminish that liberty in the smallest tittle. Mr. Otto goes on, "If it be a right in England to allow the most extensive liberty of the press, it is a public right of polished nations, and the bounden duty of governments, to prevent, repress, and punish every attack which might by those means be made against the rights, the interests, and the honour of foreign powers." This can be regarded in no other light than a declaration, and has no meaning if it be not a declaration, of an intention on the part of France to combine the other nations of Europe in an attack against this country to *prevent, repress,* and *punish* the liberty of the press. Be it so. We had rather on this ground, than on any other. What a distinction to this country! Did the course of human affairs ever present an occasion of glory comparable with this; a single nation maintaining a contest against united powers, not for any particular point of national interest, but for one of the greatest and dearest prerogatives of human beings! Every individual would have the strength of twenty slaves in such a contest as this! It is one of the frantic conceptions of a mind giddy with its situation, that a combination could be formed even of the most despotic governments for so detestable a purpose. By the enemies of despotism perhaps it may be wished that it should be formed. Fatal would it be for such governments! The number of men who are wise and good, not at present a mean proportion in any country of Europe, would feel their indignation roused to hazard every thing to destroy a system which could employ, or need, such atrocious means of preservation.

The answer made by our ministers to the mean and peevish complaint against the protection afforded to the French emigrants is full and satisfactory. Prove, say they to Bonaparte, any crime against them, and we will punish them for it. They wear the insignia of the old orders of France, says Bonaparte. What is it to us, say the ministers, whether they do or not? Their opinion of your government is not more declared by such silly badges, of which we do not approve, than by their refusing to live under it. You would not have us punish them for this opinion? No; we made peace with you; and by that act undertook not to disturb your government; but we did not undertake to guarantee it, either from foreign or domestick foes. But, says Bonaparte, the English government, when the banished princes of England sought shelter in France, demanded their removal, and obtained it; why not give me the same mark of friendship and respect, and send the princes of the house of Bourbon to live at Warsaw with their chief? You misstate the facts, say our ministers; England did not demand the removal from France, even of the king, whom she excluded from the throne; and James II. with all his adherents lived in France till the end of his days. During the war which preceded the peace of Utrecht, Louis XIV. thought proper, in direct violation of the treaty of Ryswick, to proclaim the son of James king of Great Britain; and as some redress for this injury and insult, Louis was required by the treaty which terminated that war, not even to harbour the person whom he had endeavoured to impose upon the British nation: but that requisition went no farther than the person of the Pretender himself, and extended not to any of his family or adherents. Many of these continued to reside, and obtained employments in France. The duke of Berwick, the natural son of James, the ablest and most dangerous of them all, continued a general in the French armies; and who ever heard from Britain any complaint on that subject?

So totally frivolous being all other grounds of complaint, so captiously urged by France, the sole point which deserves a moment's regard, are their claims for the giving up of Malta. We not unwillingly suspend giving our own opinion on this case, that we may state those of others, whose names will attract to their opinions more attention.

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2. *Proceedings in Parliament.*

On no occasion whatever, perhaps, was public curiosity more excited with regard to the proceedings in Parliament, than on Monday with regard to the discussions on the Message of his Majesty. The writer of this having been fortunate enough to obtain a seat in the gallery of the house of commons, it is believed that a short account of the transactions of that evening will be very gratifying to our readers.

Lord Hawkesbury opened the discussion. He began by stating a wish, that the House would be willing to confine itself for that night to the consideration of that point to which the Message of his Majesty more particularly directed their attention, namely, the propriety or impropriety of promising his Majesty the support of the House, in the war which was now commenced. The decision of this point he conceived to depend upon the opinion which ought to be formed of the conduct of France, and was not connected with the question whether his Majesty's ministers had acted wisely or foolishly in their transactions with the French government. Before entering upon the delineation of the conduct of France, he adverted to the state of affairs at the conclusion of the treaty of Amiens. As the war which preceded that treaty was unlike any other war which had ever occurred; so it had never been his expectation but that the peace which was to follow it, must in many respects be unlike an ordinary peace. With this expectation, he thought peace, at the time of its acquisition, with all the sacrifices which we made to obtain it, preferable to war; and though he had been disappointed in his expectations of the continuance of peace, even yet he thought the treaty of Amiens a blessing to this country. It took away all ambiguity and suspicion from the motives of the British government in its opposition to France. It enabled them to carry to the contest the hearts, the wishes, and the prayers of the British people, when they saw and believed that they were fighting for the independence and honour of their beloved country, and the enjoyment of their own inestimable rights. It deprived the government of France of the enthusiastic support which it was enabled to draw from the people by persuading them that England wished to dismember their country, or impose

upon them a particular species of government. His Lordship stated it to be known to him, that a great part of the most enlightened men in France were averse to the war, and believed it depended upon their own government to avert it. These great moral energies, thus turned in our favour, infinitely overbalanced a few Dutch colonies, and whatever was given up as a sacrifice for peace.

His lordship then enumerated the several aggressions, insults, and hostile intentions of the French government, the annexation of Piedmont, Parma, and Placentia, the violence used to Switzerland, the maintenance of French troops in the Batavian territory, the sending ambiguous characters to this country under the name of commercial agents, the mission of Sebastiani to Egypt, the disclosure of designs upon Egypt, and the menacing demand of the surrender of Malta, and commented upon them very nearly in the terms of the King's declaration; we think it therefore unnecessary to repeat particularly what he said. One thing worth mentioning, is his information, which had not before been given, that the French agents, named commercial, corresponded with their government in cypher. The conclusion which he wished to establish was, that whatever difference of opinion might exist as to the particular point at which ministers ought to have made their stand against the encroachments of France, that stand was now at least just, and could no longer be deferred. He concluded with a pathetic call upon the House for unanimity on this great occasion, as a test to the enemy of what they had to expect from British courage and indignation justly roused.

Mr. Erskine rose next. He seemed to be very desirous to impress the House with an opinion that he was disposed to co-operate vigorously for carrying on the war, and to make the greatest sacrifices for that end. He seemed very desirous to convince the House, that he did not stand as the apologist of France. He seemed to agree with the ministers, that France manifested a dangerous spirit of aggrandisement, a spirit of irritation and insult toward this country, and dangerous designs against our interests. He seemed, however, at last, to think that war was not right.

Mr. Pitt next attracted all attention. He began by stating with great clearness the distinction between the question whether the conduct of France demanded war, and the question whether the ministers deserved censure or praise. The first of these only he considered as the subject of discussion that night, and declared his intention of adhering to that point.

The decision, whether cause did or did not exist for going to war with France, did not depend upon determining what was the precise point at which resistance ought to have been made to the injurious practices, and security demanded against the hostile designs of France, but whether now a sufficient accumulation of wrong, sufficient evidence of a hostile disposition has been received from France, to render warlike measures necessary. Here he adverted to the speech of the member who had spoken before him; and said he felt peculiar satisfaction in flattering himself that he might congratulate the house, and the country, upon complete unanimity in the opinion that warlike measures were necessary. For if an inference was to be drawn from the sentiments of that gentleman, to the sentiments of the other gentlemen with whom he had in general coincided in opinion, it might be concluded that they too, though not exactly in concord with the rest of the house as to the particular opinion to be formed of every part of the conduct of France, were yet no less convinced of the unjust, encroaching, and insolent spirit of the government of that country, than any other party in parliament, and no less zealously determined to protect their country from its effects.

The treaty of Amiens he had, he said, approved of, not because he thought the terms satisfactory: for who would think them satisfactory?—But because he thought them the best which could be obtained, and preferable in the state of affairs at the time to war. If, however, France, from that day to this had manifested every thing rather than a disposition to act on the spirit of that treaty of peace, or any principles of peace; if the acquisitions which she had made, and the spirit which she displayed, were utterly inconsistent with the security of this country, what remained but to employ the resources of the country for the preservation of the country? It was worthy of remark, he said, that the peculiar spot, which had been the last scene of the zeal of Britain against French ambition, was that chosen by France, whereon to begin her attacks upon this country; that the very ground which had been consecrated, it might be said, in the recollection of Britons, by the glory which had been gained, and the heroic blood which had been shed on it, should be chosen as the spot on which the first attempts against their power, their glory, and their existence, should be made. It was not solely the publication of Sebastiani's report, which he regarded as evidence of the dangerous designs of France upon Egypt; nor the sentiments expressed in that report, though certainly many of these were sufficiently offensive. The very mission was in his opinion the strongest proof which could be wanted. To send an accredited agent to traverse and explore a country with which the nation which sends him has no concern, and which can be of no advantage to that nation, but as a means of annoying a neighbouring nation, is so suspicious and alarming a transaction, that it is scarcely to be regarded so much as an evidence of hostile design, as in truth a hostile act. Were Great Britain secretly to dispatch a military officer to traverse and explore South America, should we easily persuade Spain, or any other part of Europe, that our intentions were perfectly innocent? "But France explained this transaction. A book had been published by a British officer, containing the most atrocious and false imputations upon the First Consul, and his army; and these it was necessary to disprove." Those might believe that the mission of Sebastiani was to disprove Sir Robert Wilson's book, who could believe that commercial agents, having secret instructions to send soundings of our coasts, and plans of our harbours, and to correspond in cypher, were sent only for literary and scientific purposes. But the object of sending Sebastiani must surely have been in the contemplation of his senders, before he was sent. Now it

unfortunately happened that the date of Sebastiani's departure for Egypt was previous to that of the arrival of Sir Robert Wilson in England, and some months previous to the publication of his book.

What then was the conduct becoming Great Britain with regard to designs, thus strongly exhibited, dangerous in the last degree to some of her highest interests? To lay hold with all expedition possible upon the most effectual security against those designs. Malta was that security; and had it already been surrendered to France, such designs were sufficient to have justified its re-capture. Fortunately we were saved that effort by its still remaining in our hands. But, even independent of this most just and satifactory cause of its retention, nothing could be more impudent than the menacing demands of the French to surrender it; since the conditions upon which alone we had consented to surrender it had never been fulfilled, and were now incapable of fulfilment; and since we had thus a right to retain it till some other arrangement, which we might deem satifactory, could be made.

Another circumstance of serious portent was the visit of those same commercial agents, a species of commissioners, the like to whom were probably never deputed from one nation to another before; who could be regarded as nothing but authorized spies, and whom it would have been our business to hang, had we laid our hands upon them in time of war. So extraordinary a circumstance was this, that he should not be satisfied with learning that such insidious guests had been withdrawn upon remonstrance, by their own government; he should wish to know that they had been ordered to quit the country expressly by his Majesty's ministers.

Another attempt of the French government was one which must rouse the indignation of every man who had any particle of regard to the honour and independence of his country, an attempt, which, if yielded to, would place us on a level with the abused and degraded republics who were now the scene of triumph and injustice to the First Consul; he meant the attempt to interfere in the internal government, in the municipal regulations of this country, by the demands against the liberty of the press, and the protection of the French emigrants. These demands were resisted with spirit, and in terms which did honour to those who dictated them. And surely never was a more impudent attempt made against the privileges, against the faith, honour, and generosity of a great people.

He thought with the gentleman who spoke before him, that the sentiments manifested by the First Consul, in his conversation with Lord Whitworth, were not to be regarded as those uttered in an ordinary conversation. That person was not to be looked upon as standing in an ordinary situation. Absorbing as he did in his own person all the authorities of the state, legislative, executive, and judicative, the sentiments of Bonaparte were to be regarded as the sentiments of the state; more especially as he declared that he had chosen that mode of communication, as being more explicit, more clear, and decisive, than that through the medium of his ministers.

After animadverting upon the behaviour of France with regard to Switzerland and Holland, and noticing the construction put upon several of these acts by the gentleman who spoke before him, Mr. Pitt declared his opinion to be, that France exhibited such a spirit of ambition, of encroachment, and of enmity to this country, as rendered it necessary for us to retain the means of security against that spirit which we had in our hands, at any risk of war, or of what that war might cost us. With regard to the issue of the war, he entertained, he said, the most confident hopes. But he should only deceive the nation, if he did not expressly declare his opinion, that without sacrifices and efforts of a very extraordinary kind, this favourable conclusion was not very confidently to be looked to. After a careful observation of the behaviour of republican France during two years of peace, and after the opportunity he had possessed of studying her during a long period of war, in the critical and difficult situation in which it had been his lot to stand, he thought it was not arrogating too much if he reposed some confidence in his own experience; and, upon the strength of that experience, he thought it his duty to declare that his countrymen ought to be prepared for the most vigorous exertions. The spirit, the heroism, the magnanimity with which they had supported the last arduous, in many respects successful, in most glorious, and in all honourable conflict, was beyond all praise and all example. Should the present be as severe, should it even be as long, he had no reason to suppose they would shrink from it. But he should only be trifling with them if he did not declare his opinion, that vast as were the sacrifices made to maintain the last important struggle, those necessary to maintain the present were not unlikely to be still greater.

He concluded by saying, that the object of France was twofold, to intimidate and disorder us by threats and attempts of invasion, and to wear us out by a war upon our finances. Our object ought to be, in the first place, to systematize a complete and effectual plan of defence, that every man might have the comfort, after the extraordinary sacrifices for which he might be called upon, of laying down his head in peace, with the knowledge that his family and whatever is dear to him are in safety; and next, by the spirit and patriotism with which we give ourselves to support the conflict, to prove to France that the productive powers of this country are adequate to its defence, and that we can defy her efforts without endangering our system of finance.

Mr. Grey then rose, and explained his views of the present state of affairs. He complained that even after the production of the additional papers, for which he had moved, there were several points on which he very much wanted information. He took notice of the difficulty of his situation, that instead of the animating topics of heroism and courage, so popular, and so powerful over the minds of a British parliament, he had to urge the cold motives of prudence, which though in reality very distant from fear, might yet have some appearance of being allied to it; that, too, instead of complying with the animating call for unanimity which had been made by the former speaker, and which seemed to be so warmly seconded by the house, he found himself under the painful necessity

of disobeying that call. But, notwithstanding that painful necessity, should the determination of government be formed for war, he should account it his indispensible duty to support the government, with every mean of which he was master, in maintaining the independence of the country, and resisting aggression.

He then went over the several grounds of offence enumerated in the King's Declaration. He did not attempt to extenuate the degree of injury which the ministers ascribed to these acts. But he contended, that taking them separately, not one of them was a cause of war; as the ministers themselves allowed, by not declaring war on account of them. When he came to Malta, he represented this as in fact the single point on account of which war was to be waged. He did not expressly deny that this was a sufficient ground of war; but he denied that sufficient pains had been used to obtain an amicable arrangement with regard to this matter. He complained that ministers had not remonstrated with more spirit upon the several acts of offence received from France; and asserted that had they remonstrated with sufficient spirit upon each of these acts, France would not have dared to proceed so far in adding injury to injury. He complained, in particular, of the period at which the message from his Majesty was brought to parliament, when France had mentioned a project which would give satisfaction with regard to the security of Egypt.

Lord Castlereagh replied to these observations. He objected to the species of reasoning, that because any one of a great number of acts of offence was insufficient cause for war, this great number taken together was not proof of a disposition which rendered peace impossible. He denied that ministers had shewn any remissness with regard to remonstrance, except in so far as a regard to conciliation, and to the tender feelings of a new government, seemed to require from a great nation who had no occasion to be frightened at concession. He denied that his Majesty's message had been precipitated; he asserted that facts sufficient had been experienced to convince us of the disposition of France, and what faith was to be reposed in her declarations; and that the effect of any further delay of vigorous measures was only to place us in a less advantageous situation.

Mr. Wilberforce went over nearly the same ground with the other speakers who were in favour of war; and when he had finished, a motion for adjournment was agreed to.

The very complete manner in which the proceedings of Tuesday night have been reported in the daily papers, saves us from the necessity of doing any thing more than mention what was done. Mr. Grenville and Mr. Canning commented on the causes of war in a strain similar to that of Mr. Pitt on the former evening. Mr. Whitbread went over the ground of Mr. Erskine and Mr. Grey. Mr. Fox followed in the same opinions. He insisted that the papers before the house did not prove the ministers to have been uniform in their desire of peace. He denied that the aggressions of France, on her continental neighbours was a necessary cause of war, otherwise the partition of Poland was so too. The accessions of strength to France he acknowledged to be a subject of regret, but not a cause of war. Insults he denied to be a cause of war; the only ground of complaint, he said, was the refusal of satisfaction. And a flat refusal was all that was necessary with regard to the demands respecting the press, and the French refugees. Sebastiani's report he considered as indecent. His mission he considered as military, and to disclose a wish to have Egypt, but no proof that any immediate designs were entertained against it; and if such wishes were a ground of war, what year could be named when we could have been at peace?

With regard to the treatment of our ships complained of, it was but the execution of a known law of the republic, and not one more harsh and improper than our own navigation act. With regard to the spies called commercial agents, they should have been sent out of the country, and satisfaction demanded. Malta he considered as neither the key of Egypt, nor Egypt as the key of India, nor India as one of the vital members of this country. For the opinion with regard to Malta he gave the authority of Lord St. Vincent and Lord Nelson. The reason for refusing the evacuation of Malta on account of the want of guarantee he thought not satisfactory; and that the offer of the emperor of Russia should be attended to. Our conduct he said appeared perfectly selfish, and deprived us of all hopes of obtaining allies. He asserted that even yet accommodation was not hopeless by the mediation of Russia; that it was not even impossible that Russia might be engaged in a general plan of guarantee against the power of France, even for the independance of Holland and Switzerland. He asserted that improper conclusions had been drawn from the conversation of the First Consul with Lord Whitworth; that the language he used was candid; and his confession of the probability that he with his men would go to the bottom of the sea in an attempt to invade this country, an event most likely, was any thing but arrogant. He concluded with an eloquent description of the miseries of war.

Mr. Addington made a speech similar to that of Lord Hawkesbury on the preceding night. The Attorney General and Mr. Windham animadverted with great severity on the spirit of Mr. Fox's speech. The motion of Lord Hawkesbury was carried by a majority of 398 to 67; the purport of which was to assure his Majesty of the most vigorous support in the prosecution of the war, and of the just sense entertained of his Majesty's disposition to terminate the calamities of war, whenever that object can be accomplished consistently with the honour of his Majesty's crown, and the interests of his people.

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PHYSICS.

1. *Board of Agriculture.*

IN the 20th Number of our Journal, under the head of Physical Notices, we mentioned the course of lectures explaining the application of the principles of chemistry to the business of agriculture, which were to be delivered before the board, by Mr. Davy of the Royal Institution. We are now enabled to lay before our readers some account of the course, from the outlines published by the lecturer himself. We are particularly happy that the attention of Mr. Davy has been thus attracted to the benefit which may be conferred upon agriculture by chemistry, a subject about which not a little has been said, but very little done in it; and we entertain the strongest hopes from the industry and sagacity of this young philosopher, that very important improvements will soon be the result of his investigations.

The Lectures are six in number. The first contains a general introduction, with preliminary observations on the organization and chemical composition of vegetables. In the second, the atmosphere, water, and soils, are considered in their relation to the nourishment of plants. The third treats of the chemical phænomena exhibited in the germination of seeds, and the growth of vegetables. The fourth describes the composition and operation of manures. The fifth relates to the improvement of lands, and to the chemical changes that may be effected in soils. And the sixth explains the application of chemical principles to the different operations of farming; and the methods of making experiments with regard to vegetation. The following extracts from the different heads will give some idea of the spirit of Mr. Davy's doctrines.

"1. Vegetables, says he, are possessed of a principle of life; but their functions are modified by the operation of external agents. Their nourishment, their growth, the action of heat, light, air, water, soils, and manures upon them, are subjects immediately connected with chemistry; and the theory and praxis of agriculture, are, to a great extent, dependent upon the chemical laws."

"The composition of plants is as various as their structure; and their different organs, when acted on by the simplest methods of analysis, give different products. The basis of their solid parts is woody fibre. Mucilage, sugar, extractive matter, tanning, gallic acid and other vegetable acids, gluten, bitter principle, colouring and aromatic principles, are found, in various states of combination, in different vegetables. The sap chiefly consists of water holding in solution neutral salts, and small quantities of substances analogous to those extracted from their organs..... By the agency of heat the principles of all vegetable productions are made to undergo new arrangements; and in this case they produce different proportions of carbonic acid, water, hydrocarbonate, charcoal, earthy and alkaline substances, and oxide of iron.....and from the results of their ultimate decomposition, it is evident that the variety of the productions and organs of plants are constituted by different combinations of a few simple elements; the most important of which are oxygen, carbon and hydrogen."

"2. Vegetables again must derive their component principles, either from the atmosphere by which they are surrounded, or the soil in which they grow..... The earths contribute very little immediately to the nourishment of plants; but from the peculiar form of their mixture, they enable them to grow so as to be exposed, in the best possible manner, to the influence of the atmosphere; and at the same time they supply them in a proper manner with water, and other substances which are deposited or formed on the surface of the earth. Soils contain, in almost all cases, certain portions of vegetable and animal matter in a decomposing state; which, being organizable, is more or less essential to the healthy growth of plants. They contain likewise oxide of iron, and various neutral salts; and these compounds, under certain circumstances, appear to accelerate vegetation, either by their agency on the living powers of plants, or by producing such changes in other substances, as enable them to become the food of plants."

"3. All vegetables are raised from seeds; and their nourishment and growth depend on the perpetual assimilation of different substances to the organs, in consequence of the exertions of their living powers and their chemical attractions..... In such plants as consist of different assemblages of perfect parts, there is a periodical decay and production of various organs connected with the changes of season. And branches or buds of these plants are capable of becoming distinct vegetables, by being separated from their parent and planted in a new soil, or transferred, under certain circumstances, to other trees. And on these circumstances are founded the processes of engrafting, inoculation, &c."

"4. The most efficacious manures are those capable of immediately supplying food to the plant. Amongst them are vegetable and animal matters which have undergone fermentation or putrefaction; and various substances, given out as excrementitious by animals, which contain carbon, hydrogen and oxygen, in such combinations as enable them, under proper circumstances, to be absorbed by plants, and to be combined with their organs..... The manures capable of becoming the food of plants, act upon them so as to be taken up by their organs either in solution in water or during their conversion into elastic fluids. They should therefore be applied as soon as they have undergone the first degree of

change. Animal manures lose their powers of assisting vegetation sooner than manures from vegetable substances, which, primarily, are less active. Vegetable organizable matter is likewise, in general, possessed of a stronger attraction for the constituent part of soils; and it is more slowly decompounded by the action of water, air, and other natural agents."

"2. As different parts are best nourished by different food, so they vegetate to the greatest advantage in different soils. The nature of the soils, however, which different vegetables demand, must, in some measure, depend upon the state of the surrounding atmosphere."

"3. And lastly, by ploughing, &c. the organizable matter buried beneath the soil, is more perfectly exposed to the influence of the air and of moisture, and in consequence of their action it is rendered more easy of absorption by the roots of the infant plant ..... By fallowing, living vegetables are destroyed an converted into a species of manure; likewise dead vegetable fibres and roots are exposed to the atmosphere, so as to be converted into new products. The advantages derived from fallowing will be always proportional to the quantities of undecompounded vegetable matter existing in the soil; and very poor lands are but little benefited by it..... By the successions of crops of different vegetables common in the practice of agriculture, appropriate nourishment is provided, without impoverishing the soil: the decomposing remains of one plant serve as the food of another; and the exhaustion occasioned by the production of seeds, is in some measure made up for by the manure furnished in the next tillage by the roots and leaves remaining on the land."

"Our knowledge of the true system of vegetation, concludes Mr. Davy, is as yet in its infancy; and the extension of it can only arise from the discovery of a great number of new facts. Chemical experiments particularly are wanting on the subject of the changes effected in the substances which form the nourishment of plants, or which are essential to their existence, at the time of their immediate agency. Such experiments would require but little labour, and an apparatus of no great extent; and their results would be most important. The fundamental principles of agriculture are well understood, considered as to their practical applications; but though much has been effected by the labours of modern experimental philosophers, the chemical theory is still obscure and imperfect. We may reasonably hope that this part of science will daily become improved: a spirit of enquiry is awakened with regard to it which public and private interest will tend to keep alive."

2. *Review of a Treatise on the Cow-Pox.*

By George Bell, *Surgeon*, Edinburgh, 1802.

There is no problem in physiology perhaps more difficult to explain than that which regards those infectious diseases which attack the human body only once in a life-time. The small-pox for instance has been from time immemorial constantly raging in some part of the world or other, making periodical visits to every country, and sweeping off thousands wherever it appears. Now how comes it that those who have once had the disease, though exposed to the infection as often as you please, are not liable to take the disease a second time? If it owes its origin to an infectious matter, what hinders that matter from acting on the system twice as well as once? What change is produced upon the human body by the disease which renders it unsusceptible of the small-pox, and yet leaves it as liable as ever to other disorders? These are questions which have never been answered in a satisfactory manner. Even the speculations of Mr. John Hunter, ingenious as they are, throw scarcely any light upon the subject.

Even the periodical appearance of these diseases is involved in almost equal obscurity. The small-pox seems to have been unknown in ancient Europe, while the plague, which was the scourge of our forefathers, never makes its appearance at present in the west of Europe. Whence did the small-pox originate, and how is it continued? Final causes may be easily assigned by the moralist and politician, but the fact cannot be explained by physiologists.

Be that as it may, the time seems not far distant when the small-pox shall be again annihilated, and it is not unlikely that it will be as completely unknown to our posterity as it was to our ancestors. For this, which constitutes a memorable era in the history of medicine, and even of the human race, mankind are indebted to Dr. Jenner, who substituted the inoculation with cow-pox matter instead of the common small-pox inoculation. So rapidly has this method been diffused over Britain, and even over Europe, that now the existence of the small-pox has become very rare in this country, and we have known instances of parents who refused to submit to the cow-pox inoculation fail completely in all their attempts to procure small-pox matter, and therefore obliged to submit to the substitution.

These facts prove that the cow-pox inoculation is now generally followed all over Britain. It must therefore be frequently in the hands of the inexperienced. But it has been ascertained by the researches of those medical men who first rendered the practice general, that the inoculation fails of preventing all subsequent attacks of the small-pox, unless the matter be taken at particular periods of the disease, and from pox exhibiting certain characters. Now unless the operators are aware of these circumstances, they may injure their patients instead of benefiting them; and the credit of the cow-pox inoculation may suffer from the ignorance of those who attempt to put it in practice. Several instances of this have lately occurred to our observation.

It was this which has induced us to recommend to the public attention the little treatise on the cow-pox which forms the title of this article. It comprehends in a small compass a very accurate and complete account of the history and appearances of the disease, and very distinct directions for proceeding in inoculation. It has the advantage too of being written by a gentlemen in extensive practice, and of an established reputation, and therefore the inexperienced may rely on the directions which it contains with implicit confidence.

The treatise is divided into two chapters, the first

treats of the *casual* cow-pox, the second of the inoculated cow-pox. In the first chapter, Dr. Jenner's discovery is detailed, and the appearance of the cow-pox on the udders of cows described. Our author agrees with Dr. Jenner that the disease originates from the *grease* in horses heels, and relates the experiments of Dr. Loy, which have afforded very strong evidence in favour of that opinion. He mentions also the spurious cow-pox which does not defend the human body from subsequent attacks of the small-pox.

The second chapter is divided into seven sections. In the first he gives an account of the method of procuring the virus of the cow-pox, and of preserving it for use. It ought to be taken between the fifth and ninth days from the inoculation, placed between two plates of glass dry, and when to be used it is to be softened by the steam of water. In the second section the manner of performing the inoculation is described. In the third, the symptoms of the disease are detailed; and in the fourth, the means of distinguishing the genuine from the inoculated small-pox. These two sections are important, and ought to be studied by every inexperienced practitioner. In the fifth section the means of ascertaining whether a patient has had the cow-pox are detailed. In the sixth we have an enumeration of the cases in which the cow-pox inoculation should be deferred; and in the seventh the author states the advantages of the cow-pox inoculation over that of the small-pox.

The treatise is accompanied with figures exhibiting the appearances of the pustules, both of the genuine and spurious cow pox, in all the different stages of the eruption.

3. *On the Freezing of Water.*

The singular results announced by Dr. Priestley, respecting the air extracted from water in the act of freezing, render the following observations of Professor Driessen of peculiar value.

This gentleman has pointed out the following method of detecting the smallest traces of air in water. The water to be examined is tinged blue with litmus. A flask is filled with it, with the proper precautions to drive out the air which may adhere to its sides. The flask is inverted, and nitrous gas introduced till about $\frac{1}{7}$ of the water is displaced. The flask is then placed over mercury to exclude the contact of air. If any air be contained in the water, its oxygen combining with the nitrous gas will form nitric acid, and the litmus will acquire a red colour. The quantity of alkaline solution necessary to destroy this red colour, gives us the relative proportions of air which the water contained.

Distilled water, however carefully prepared, always gives traces of air by this test. Water freed from air by the air-pump, imbibes it again, as soon as the air is admitted; but water may be freed from air by the following process:—Boil pure water for two hours in a large bason; colour it with litmus. Warm in it a large flask, and holding it with a forceps, fill it entirely with boiling water. Let it remain for half an hour, with its mouth some inches below the boiling-water, and frequently strike its sides to drive the air from the sides of the vessel: then invert the flask, introduce nitrous gas, and place it over mercury. If this experiment be rightly conducted, the colour of the litmus is not altered.

Some water thus freed from air was cooled down in flasks, and on agitation it froze, but no air bubbles made their appearance. When such water is frozen in the vacuum of an air-pump, it becomes quite spungy in consequence of the escape of particles of water from every part in the form of steam. This renders the ice penetrable to air, which pervades every part of it as soon the vacuum is removed.

4. *Strictures on Forsyth.*

As Mr. Forsyth's book on trees is in extensive circulation, and as his opinion has been questioned by many gardeners of eminence, we think it proper to give the following extract from the first Number of the Gardener's Remembrancer, by James M'Phail, Gardener to the Earl of Liverpool. This Number was published last January; and what is singular, though it was well received, and much approved, no succeeding numbers have appeared. This Number contained *a View of Mr. Forsyth's Treatise on Trees and compositions*; and as a copy cannot now be purchased, an extract from it must be regarded as curious.

"Had Mr. Forsyth's boasting of his own great merit above every other Gardener, been attended with no worse consequences than the obtaining from the public a pecuniary reward for that, which, in the nature of things can never benefit mankind; he might have been permitted, at least by his brother gardeners, to enjoy his ideal acquirements of knowledge peaceably. But his depreciation of every method of pruning and training, except that which he calls his own; his attributing the cause of the diseases and decay of trees to carelessness and unskilful management, and his many positive assertions, 'that wherever his composition shall be properly applied by proprietors of gardens, orchards or woods, it will be productive of all the advantage that can be derived from restoring as well as preserving vigour and fertility in all kinds of fruit trees, and prevent decay, promote health, and make sound timber in every species of forest trees,' as, instead of a composition, an imposition on the public, and the means of creating discord between gentlemen and their gardeners. Such ill effect, when a failure of crops of fruit is experienced, is only a consequence naturally resulting from the reading of Mr. F's book, if gentlemen are not habituated to the study of the progress of vegetable life, with the variations in climate and soil, which affect the health and fruitfulness of trees."

"The natural efforts of vegetable life, to cover with bark the disbarked parts of trees, and which is distinguishable in a greater or less degree in different sorts of trees, and in various climates and soils, Mr F. attributes to the virtue of his composition. This seems to be taking to himself the praise which ought to be ascribed to Him who causes all things to subsist.

"Boasting of his own pretended meritorious methods, and undervaluing those of all other gardeners, which he calls the common, Mr. F. says, 'In all old gardens

and orchards throughout the kingdom, the greater part of old trees hardly bear fruit sufficient to pay the expence of gathering, but if his method of pruning, &c. were practised, the fruit would be much finer, and the owner would have five times the quantity.' He therefore 'hopes gentlemen and others will not continue blind to their own interest, but give his practice a fair trial, which, if properly executed, will not fail to turn out to their satisfaction;' for then, instead of having only 'a few hard and kernelly fruit, they will have the pleasure of seeing fine healthy clean trees, loaded with large, beautiful and well-flavoured fruit.' 'It has been,' he says, 'the general practice to train wall trees in the form of a fan, so that scarcely one quarter of the wall is covered with bearing wood.' He then recommends horizontal training, and in case his language should not be strong enough to convince of the superiority of his pretended invention in this respect, 'above the common,' Mr. F. gives 'plates of both, figuring the apricot, peach, cherry, and plumb-trees."

"Now, if any person who has been acquainted with the methods practised the last thirty years, of pruning and training trees, will examine these plates, he cannot but be convinced of the ignorance or subtilty of the author. Still, however, if possible, going a step farther, Mr. F. says, 'the success of his new method is demonstrated by the trees in Kensington Gardens, which, upon examination, have convinced all those that viewed them of the practicability of producing the finest, cleanest, and most prolific branches from stumps in a state of decay.' Here are high sounding words, which, however, do not well accord with his language in page 54, where he says, 'I am sorry that many who have seen the improved state of the fruit trees in Kensington Gardens, still have their own managed according to the old method of pruning.' But notwithstanding all that Mr. F. has advanced respecting his own inventions, it does not appear to me that he has found out, or published any methods distinct from those recommended and practised long before his time. For a proof of this, though other authors might be quoted, I refer only to Evelyn, on Forest trees; Hitt, on Fruit trees, and Langley's Pomona." Page 7 to 10.

"Trees become diseased and unfruitful, because they are not sufficiently supplied with wholesome nourishment from the earth in which their roots grow. Let a tree, for instance, in such a state be headed down, and treated in every respect according to Mr. F's prescriptions, it will perhaps make strong shoots, which may retain their health for three or four years, but if the food of such tree be not increased, its branches will certainly soon return to a similar state of disease, as those that were taken off by headings. The case is clear to a person possessed of philosophy; for the plant being divested of that, for which the roots could not obtain sufficient wholesome nourishment, and the remaining part of it still supplied with the same quantity of nutritive food as the whole plant received before lopping, enables it to shoot vigorously, and to continue apparently healthy till its requirement of good nourishment is greater than its supply."*

"In kindly seasons, trees, though infected by the canker, do produce plentiful crops of good fruit. Indeed, if they did not, there would be but little fruit in England, nor peaches, nectarines, or apricots in Kensington Gardens. These are facts which cannot be justly denied by any who have a knowledge of the diseases of trees; those, therefore, who have the superintendance of gardens and orchards, would do well to deal gently with their fruit trees, and not too hastily divest them of their bearing branches, in expectation that Mr. F's plaster can work wonders on them."

"It has long been acknowledged by practical men, that judicious pruning and cutting away decaying parts of trees, are attended with good consequences, for these are the means of permitting the sun and air more effectually to evaporate the morbid noxious juices, contracted either from over-abundant moisture, bad soils, or density of air. The spring and summer are the best seasons in which to perform this work, because then the juices rise copiously, and all the vegetative powers are in the greatest state of activity to perform the unalterable laws, which nature pursues in the formation and growth of vegetables."

"Mr. F. is often at variance with himself. The canker in trees he maintains is only incidental, brought on by injudicious pruning and bad management, but never proceeds from the ground in which trees are planted. To try to convince his 'esteemed friend' of this hypothesis, he made Sir Francis Drake's gardener open the ground round an apple tree, much infected with the canker, and found, he says, its roots perfectly sound.† This is a weak proof indeed, and the only proof or argument brought forward to substantiate his prejudiced opinion of the origination of the canker in trees. Could Mr. F. have made it appear from facts demonstrated by experience and sound reasoning, that the canker is never communicated to a tree by the medium of its roots, he would at least have paved the way to lead to a hope, that some external application might be invented to effect a cure, or become a preventive. But instead of having recourse to philosophical disquisitions in support of his hypothetical chimera, he repeatedly affirms, "that the canker always proceeds from the branches and stem to the roots, and never from the roots to the tree." Supposing Mr. F's hypothesis to be a just one, in this respect, it would overthrow his own weak argument, for if the canker really proceed from the branches and stems to the roots of trees, the roots of his much infected tree would consequently not have been found perfectly clear of canker. And on the other hand, supposing it possible, for the roots of a cankered tree to continue sound, it could not be proved, or even inferred from thence, that such roots through which the tree receives its nourishment, did not draw up into the stem and branches unwholesome corroding juices,

* Mr. F. in page 97, says, he put his Majesty to great expence in taking out the old mould from the borders against the walls, "but it had no good effect." How irreconcileable is this with page 6—102—253, where he advises fresh mould to be added "to the roots of the trees."

† The roots of fruit trees run a greater length in the ground than many writers seem to be aware of; they may appear sound three or four feet distance round a large cankered tree, but if its roots were minutely traced to their utmost extent, they doubtless would be found diseased.

which the efforts of nature endeavouring to cast off by perspiration might cause the canker and other diseases in fruit trees."

"If the canker really proceeded from the causes Mr. F. assigns, and if it had that effect on trees as he maintains, there would, I apprehend, have been few fruit trees alive in Kensington Gardens, or in any other place, for him to try experiments on. 'Whenever an incision is made even for budding or grafting, from that moment (Mr. F. says) the canker begins. This disease, if no remedy be applied, will totally kill the tree.' According therefore, to Mr. F's doctrine, a sound fruit tree cannot be procured from any nursery-man whatever, excepting from those who use his plaster; and I am assured, many of the nursery-men round London have not yet used it, and some of them who have tried it are not convinced of its efficacy above the common clay used in grafting.

"Comparing these observations with page 246, another proof of the inconsistent ideas of Mr. F. may be seen. There he says, 'it is common when young trees do not thrive, either to blame the nursery-man for sending bad diseased trees, or to attribute their unthriving state to the nature of the soil, whereas the fact is, that this arises from the inattention or mismanagement of the person who plants and superintends them.' Can language be uttered which would have a greater tendency than this to make gentlemen believe, that when their trees are unfruitful, or not in a vigorous, healthy state, the fault is to be entirely attributed to the inattention or unskilfulness of their gardeners, when perhaps the fault is in climate, or soil, or because the gardener has not labourers or materials sufficient to assist him in paying that attention to his business, which is required to make his laboriousness successful?" Page 12 to 16.

"Having, myself, long studied the causes of the motion of vegetable life in the production of plants, and the various effects produced in trees, by being planted and transplanted into different soils, and growing in different climates natural or artificial, and by attentively observing the consequences resulting from wounding, heading down, lopping, pruning, and cutting out the cankered parts of trees, I am fully persuaded that none of these manual operations are the causes of the canker, or of other diseases, but that diseases do arise from the sources I have already hinted; namely, the nature of soils, and the influence of the temperature of various climates co-operating with the morbid habit of the plant itself."

"I have taken from poor gravelly soil fruit trees, whose branches and roots were in a very cankered state, and planted them in good soil, in a wholesome climate, the natural one being assisted by art; this process has been the means of healing their diseases, and of enabling them to produce good crops of well-flavoured fruit, which, doubtless, they will continue to do for many years, provided the supply of nutritious food be equal to the impairment sustained in consequence of the increase of the size of the tree, and the quantity of fruit produced; for the same causes operating on the same materials will bring forth the same effect. These methods of planting fruit trees in soils adapted to their respective natures, and assisting the climate where the natural one is insufficient, I would recommend, as being far preferable to all the physical nostrums invented, or that ever can be invented by Mr. F. or any other man." Page 17 to 19.

NOTICES.

At the Royal Society on the 26th ult. a paper from Count Burnon was read, on the difference of the chrystal of the hard and soft carbonat of lime.

Society of Arts, &c.—Tuesday, May 31st, was the day appointed for the distribution of the prizes of this Society. Our readers will be able to estimate the importance of the objects of this Institution, by the subjoined list of honorary rewards.

The Duke of Norfolk, the President, attended in person, and greatly enhanced the value of the prizes by the handsome and appropriate compliments with which he accompanied their distribution. The great room was early crowded, and many beautiful ladies graced this interesting exhibition. We were pleased to notice the great regularity and decorum with which the whole was conducted.

In Agriculture.—To the Right Hon. the Earl of Fife, for his extensive plantations of Forest Trees, and other agricultural improvements in North Britain, the gold medal.

To Lord Viscount Newark, for encouraging the growth of Oak Timber, by sowing Acorns and planting Oaks in Nottinghamshire, the gold medal.

To John Shirreff, Esq. of Captain-Head, for his plantation of Osiers, class 9, the gold medal.

To the Rev. T. C. Munnings, of East Dereham, Norfolk, for his experiments on the culture and preservation of Turnips, the gold medal.

To Mr. John Knapping, of South Shoebury, for gaining 230 acres of land from the sea, the gold medal.

To John Christian Curwen, Esq. M.P. of Workington-hall, Cumberland, for his experiments on feeding cattle with potatoes, the silver medal.

To the Rev. Edmund Cartwright of Woburn, for a three-furrow plough, the silver medal.

To Dr. H. Ainslie, of Dover-street, for his plantations of timber trees, near the lakes of Windermere and Coniston, the silver medal.

To Benjamin Waddington, Esq. of Lanover-house, near Abergavenny, for improvements of boggy land, the silver medal.

To Mr. David Charles of Westmead Langhorne, Carmarthenshire, for a machine for laying land level, the silver medal.

To Mr. Robert Green, of Westurrating, Cambridgeshire, for a drill machine for sowing peas, beans, &c. the silver medal and ten guineas.

In Polite Arts.—To Mr. Thomas Ryder, of Titchfield-street, for a line engraving, class 116. The meeting of Vortigern and Rowena, the gold medal.

To Mr. Richard Austin, of Paul's-alley, Barbican, for an engraving on wood. The subject England, Scotland, and Ireland, receiving the Offerings of Genius, alluding to the Rewards of this Society, extending to the united empire, the silver medal and ten guineas.

To Miss Jackson, of Hanover-street, Hanover-square, for a drawing in chalks, of a Vestal, class 108, the gold medal.

To Miss Emma Farhill, of Mortimer-street, Cavendish-square, for an original drawing, class 104. The Death of Cleopatra, the silver medal.

To Miss Blackburne, of Park-street, Westminster, for a drawing of Jupiter Ammon, the silver medal.

To Miss Paytherus, of Norfolk-street, portrait of her Sister, the silver medal.

To Mr. J. T. James, of the Charter House School, for a

drawing of Worcester Cathedral, class 102, the silver medal.

To Miss Mary Ann Gilbert, of Devonshire-street, Portland-place, for a painting, a view of St. Mark's Place, Venice, the silver medal.

To Miss Beauchamp of Wimpole-street, for a painting, a Sea View, from de Vlieger, the silver medal.

To Miss Emma Smith, of King-street, Covent-garden, for an historical drawing of Achilles and Thetis, class 110, the greater silver pallet.

To Mr. James Hopwood, jun. Paradise-row, Islington, for a drawing of outlines, from a cast of the Atlas, class 105, the greater silver pallet.

To Mr. Hugh Neill, of Warwick-street, Golden-square, for a drawing of Brecknock Priory, in South Wales, class 107, the greater silver pallet.

To Mr. George Shepherd, of Radcliffe-row, City-road, for a drawing of St. Alban's Abbey, class 108, the lesser silver pallet.

To Mr. R. Horwood, of Liverpool, for a Map of London, on a very extensive scale, fifty guineas.

In Manufactures.—To Mr. Thomas Barker, of St. Mary-le-bone, for an improved mode of Warping Webbs for weavers, ten guineas.

In Mechanics.—To Dr. John Winterbottom, of Newbury, in Berkshire, for a machine for clearing Turnpike Roads from mud, the silver medal.

To Mr. James Woart, of Fulham, for his method of raising a Roof sunk in the middle, the silver medal and twenty guineas.

To Mr. Edward Massey, of Hanley in Staffordshire, for his striking part of an Eight Day Clock, twenty guineas.

To Mr. John Prior, of Nersfield, in Yorkshire, for his striking part of an Eight Day Clock, thirty guineas.

To Mr. Thomas Fothringham, of Alloa, near Stirling in Scotland, for making Mill Stones for grinding Wheat from the Abbey-Craig Quarry, in that neighbourhood, fifteen guineas.

To Mr. J. D. Ross, Bateman's Buildings, for a Ring with a contracting and expanding power to fit various fingers, ten guineas.

To Mr. William Bowler, of Finsbury-street, for a Screw Press, with a peculiar expanding power, ten guineas.

To Mr. John Antis, of Fulneck, near Leeds, for a method of ascertaining the number of times that Minerals or other things have been brought up from a mine in any given time, ten guineas.

To Mr. Edward Massey, of Hanley, in Staffordshire, for detached Escapements of Pendulum Clocks, fifty pounds.

In Colonies and Trade.—To the Honourable Joseph Robley, of Tobago, for a considerable addition to his Plantation of Bread-Fruit Trees, in that Island, the gold medal.

This most active and highly useful Society has received an accession of 142 new members since October last.

On the 15th of May last died at Edinburgh, Dr. Robert Kennedy, whose chemical labours have been frequently noticed in the Literary Journal. His health had been delicate for many years, but last winter it had in a great measure been restored, when he unfortunately caught the influenza, which has proved very destructive in Edinburgh. To this disease, so formidable to delicate constitutions, he fell a victim almost at the commencement of his career. The untimely death of this young philosopher is an irreparable loss to chemistry, to which he had entirely devoted his attention. His patience, industry, and acuteness, joined to the most rigid candour and fidelity, rendered him particularly fitted to excel in the peculiar walk which he had chosen. His consummate skill in the difficult art of analysis is known to all the chemical world by the masterly specimens which he has published, and by his important discovery of soda in the mineral kingdom. But those who enjoyed the happiness of his acquaintance knew well that what he published constituted but a small part of the fruits of his labours. He had verified almost every analysis of importance which had been published by others, and often tacitly corrected the results obtained by the greatest masters in the art. He had reduced his methods to such order, simplicity, and precision, as would have in a short time greatly diminished his labour. Nor is there the smallest doubt that if he had enjoyed good health for a few years longer, both the number and the importance of his discoveries would have left him inferior to none of those celebrated names who have distinguished themselves as analytical chemists. But it was his lot to be carried off the stage of life just when he had made himself master of the art; when he had overcome the drudgery of a learner, and was qualified to shine as a discoverer.

LITERATURE.

1. *On the Platonic Dialogue.*

Mr. Editor,

It has been universally admitted that the writings of Plato are among the most highly finished productions of which antiquity can boast. And every classical scholar knows that the philosophical, critical, and political disquisitions of the founder of the academy are composed in the form of dialogue. To admit a few observations in regard to the origin and character of the Platonic dialogue, is surely not inconsistent with the plan of the Literary Journal.

A considerable degree of latitude in matters of taste and criticism ought always to be permitted in the republic of letters. We are too apt however either to follow implicitly the path pursued by our predecessors, or by a fond partiality for innovation, to introduce metaphysical or false refinement into our enquiries.

It is well known, that few philosophers of great eminence flourished in Greece from the time of Pythagoras to that of Socrates; and that in consequence of the exertions of the latter, several schools of philosophy were founded. The powers of the most illustrious of the Greeks were invigorated by his example, and were improved by his instructions.

I think it may be shown that to Socrates the origin of the Platonic dialogue may be indirectly ascribed—and as the first cause, I shall mention

1. *The example of Socrates.* In consequence of the forms of government and manners of modern times, we must be very imperfect judges of the influence which the example of Socrates had at Athens. The citizens in that ancient republic were confined to a limited number. And as manufactures and trade were considered as ignoble occupations for free-born men, it is evident that they were employed in different pursuits from those of the citizens of modern times.

The chief citizens of Athens were accustomed to assemble every day in the Forum. In all states, especially in republics, there are always a sufficient number of popular topics to engage the attention of the multitude. Their opinions in regard to them are influenced by various causes; but it will be generally granted, that in the Athenian commonwealth, a man like Socrates could not fail to produce a very power-

ful effect. The impression which he made upon his contemporaries, must have been greater than could possibly be expected in modern times; because the form of the government, and the peculiar character of the people, gave every man of eminent talents a very powerful influence over the public measures, and the floating sentiments of the society.

The merit of Socrates was unquestionably great. He was the first who treated philosophical subjects in a popular way, and rendered them intelligible to common capacities; but his peculiar manner (called the Socratica Inductio) was no less remarkable. It has been associated with his name, both in ancient and modern times. And though that mode of reasoning must necessarily have been practised in the earliest ages, yet no other philosopher has exclusively employed it.

The greater number of the Athenians had frequent opportunities of hearing Socrates discourse. He was in general attended by a chosen number of disciples, devoted to his interests and to the cultivation of his philosophy. Though the seeds of rivalship, jealousy, and dissention were sown among them, they were universally agreed in the enthusiastic admiration of their master. A specimen of the vast variety of topics treated by him in his familiar conversations, is to be seen in the Memorabilia of Xenophon, a work, wherein the most valuable portion of the philosophy of Plato is contained, stripped of the metaphysical and theoretical garb in which that philosopher chose to clothe it. It is surely then not unreasonable to affirm, that the example of Socrates probably first suggested to Plato the idea of that kind of composition which he has adorned with so many inimitable beauties.

2. *The nature of the Socratic manner*, was a second cause of the origin of the Socratic dialogue. It does not suit our present design to explain at great length, what is called, in the schools, The Socratic manner. Upon the slightest reflection however, it will occur that as it is conducted in the way of conversation, a greater degree of interest is excited in the mind of the scholar, than when the same doctrines are delivered in an uninterrupted discourse. It is no doubt difficult to maintain a proper and becoming dignity in consequence of the necessary freedom and familiarity of conversation. But even this very circumstance, though it appears to lessen the dignity and authority of a founder of a system of philosophy, is yet attended with other effects which counterbalance these in a considerable degree.

Ignorance, particular prejudices, or errors, can thus be more successfully combated without assuming the authoritative or dictatorial airs of a preceptor. Instruction is as it were insensibly instilled into the mind; a recommendation of no slender moment, when the vanity and idleness of human nature are considered. Besides, we profit more by conversation than by reading or even by any other means, a greater impression is made, and consequently knowledge communicated in this way is exceedingly memorable. The Socratic manner is also accompanied with another advantage which has rendered it exceedingly popular with the vain and frivolous part of the human race. It is of all modes of disputation the most successful. For it must be observed that the peculiarity of the Socratic conversation was this, that it was carried on by way of question and answer. He who is expert in the use of it, can attack his opponent on the weakest side, and almost give any turn to the dispute he chuses. A temporary triumph is thus procured, which constitutes the great object of the ambition of such persons.

It was employed by Socrates for a very different purpose. The subjects of his conversations were important. He treated of the most interesting doctrines of philosophy, not with a view to a victory in debate, nor did he indulge in that levity of manner or illustration, which mere smatterers in knowledge mistake for genuine wit, humour, or perhaps acuteness of remark.

Now let it be remembered, that the Platonic dialogue exhibits a representation of the real conversations of Socrates; embellished no doubt in some measure by the divine eloquence of Plato, but we are warranted to affirm, that in no instance is any thing ascribed to Socrates glaringly inconsistent with his general doctrines, and that, though Plato may have introduced some opinions which were never expressed nor inculcated by Socrates upon his disciples, yet we may be assured that the Socratic manner is never deviated from, when he is introduced as a speaker.

3. *The authority or influence of Socrates* added dignity to any discourse wherein he sustained a part.

The influence of Socrates over the literary men at Athens was very great; the uncommon versatility of his talents; the modesty, diffidence, and good sense that always seemed to dictate his discourses, the rational and sound maxims of philosophy; the original observations upon human nature, and upon almost every subject of speculation in which his contemporaries indulged, formed a bond of union, and constituted a foundation for admiration to which few parallels can be made.

It would be very absurd to assert that Socrates was not indebted to his predecessors for many of the doctrines that he taught. It is true he confined himself to Moral Philosophy, and always attempted to improve practice. Yet justice compels us to observe that the earliest monuments of Grecian philosophy represent Ethics to have been the principal study of the learned in those ages. If we are to judge from the apophthegms of the seven wise men, it seems to have been little else than a series of rules applicable to human life, and intended to regulate the conduct.

The founder of every sect has always some real or supposed superiority over his admirers in regard to abilities. And the history of human nature furnishes many examples of the supreme sway which such persons have exercised over their votaries. Socrates does not appear to have been ambitious either to retain or to increase the ascendancy he had acquired. It was however as substantial, and founded upon as firm a basis as that of any philosopher of all antiquity.

He was respected by all the citizens of Athens for a very long time; for a period indeed much longer than is to be looked for from the mob. His tragical fate proves that their admiration suffered an interruption. Yet those who prosecuted the elegant studies of

literature and philosophy never abated in the esteem they entertained for Socrates.

The enthusiasm with which Plato in particular contemplated his master is well known; though the ancients had been silent upon the subject, his own writings would furnish many proofs of the same truth. Even the frequency of the introduction of Socrates, as an interlocutor in his dialogues, is a demonstration how great was his esteem for Socrates.

But a much more decisive proof of the same observation may be derived from the part he generally sustains in the dialogue. Upon a very superficial examination, it is evident that if Socrates does not always express his own sentiments, that he is merely the organ by which Plato delivers his own opinions,—and that if his dialogues are not most exact representations of a real conversation, they are principally deficient in the consistent and uniform part which Socrates sustains. I am not of the opinion, however, that Plato was so inexpert a copier of the manners and sentiments of those with whom he had so frequent an opportunity of associating, as to risk any thing which might be construed by his countrymen and contemporaries, as an improper or injudicious use of the names and authority of any of his eminent fellow-citizens. It would have been at once an error in judgment and in taste, as well as a treasonable use of character whose principles and habits were well known.

The influence and authority of Socrates, undoubtedly depended at first upon his own personal exertions. These however very soon established his character. And the suffrage of the Delphic oracle was in the issue added to his fame. The oracle was considered as infallible authority; and when it declared him to be the Wisest of Men, we may rest satisfied, that there were few in any nation whose popular and real authority was so great among his countrymen.

These observations receive a strong confirmation when we consider the nature of the dialogue of Plato. The moderns (with a few exceptions) who have chosen the form of dialogue for their compositions, have discovered little taste or ingenuity. They have not consulted nature. Neither the occasion, nor the other minute circumstances of the dialogue can be esteemed as natural in any respect.

The aid of every characteristic and circumstantial occurrence is employed by Plato, and the reader supposes that he is present at the conversation, because he is made a spectator of the interesting scene. The authority and influence of Socrates, then, contributed to the origin of the Platonic dialogue.

4. *The ironical, or rather sceptical Character of the Philosophy of Socrates* necessarily suggested the mode of philosophizing by dialogue.

Socrates professed himself an enquirer after truth: he affirmed nothing dogmatically. He seemed to consider it as his chief business to expose the weakness of the doctrines of his contemporaries. He did not, however, look upon all opinions with the same indifference. In the apology of Plato, (p. 11. edit. Serran.) Socrates says, that he was unwillingly wise; but nevertheless wished that his reasonings and discourses should be certain and determined, and not vague. He always advanced the same truths; and there can be little doubt that the intention first of Socrates, and second of Plato, adopting this manner was to expose the petulance and confidence of the Sophists.

It must indeed be acknowledged, that the Socratic irony is much more liberally employed by Plato than by Xenophon. A rivalship did exist between these illustrious philosophers. The learned, however, have been generally agreed, that the representation which Xenophon has given in the Memorabilia is the more faithful of the two.

In this view of the subject, it is likely that the particular system of philosophy adopted by Plato, rendered it very convenient for him to deliver his doctrines in the form of dialogue. He seems to have chosen to shelter himself under the manner of his master—under his authority—and in the great outline to have retained the peculiar character of the Socratic philosophy.

The Ciceronian dialogue is professedly a copy of the Platonic; and the same observations are applicable to the philosophic works of the Roman orator, which we have made upon those of the founder of the Academy.

It would have been easy to have extended our observations to a much greater length. What we have advanced, however, is perhaps sufficient to shew that Socrates was indirectly the cause of the origin of the Platonic dialogue.

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2. *The mild Tenour of Christianity, an Essay.* 12*mo.* 153 *pages.*

The public voice has assigned this work to Mr. Jerningham, and the initials of his name are subjoined to the Preface.

From the time the well attended lectures of the Bishop of London at St. George's during Lent, gave a new impulse to the fashionable world, religion has become the prevailing mode of the day: and it is now as vulgar to be a *Freethinker* as it was formerly to be a *Christian*. Nor let the moralist too rigidly blame the revolution which thus has taken place. The effect is beneficial, however ridiculous may be the cause. Whatever checks the poisonous stream of infidelity, that so lately threatened to inundate the whole civilized world, is deserving of our esteem; and we hail with joy the approach of that period, when the whole race of *Philosophers*, will be remembered only with detestation, and be spoken of with contempt.

The author of the above Essay has long occupied a very eminent station in the fashionable world; and beside his other writings has already gained considerable credit by a *Translation of Select Sermons, and funeral Orations from Bossuet*; to which he prefixed *An Essay on the Eloquence of the Pulpit in England*; the third edition of which has lately appeared. Having premised thus much, we shall first lay before our readers, what appear to be defects in the present work; and then point out some of the most beautiful and striking passages.

In the first place, Mr. J. has not sufficiently attended to the Title of his Essay—*The mild Tenour of Christianity*. His attention is too much directed to the mild tenour of the Mosaic Dispensation, and afterwards is

distracted, and led away from the professed design of the volume, in order to introduce various anecdotes in Ecclesiastical History. His language also sometimes wants a little of the simplicity of St. Paul, and is not always quite adapted to his subject; for example.

"*It is repugnant to Nature's Charter for the soul to pour out her soft Effusions at the call of vindictive power.*" (Page 2.)

And again at Page 3—

"Let Misfortune chase us to the steep, and cast us down the precipice! even then in the gulf profound we still repose on the parental arm of Providence. It is difficult not to dwell with a lingering delight on words so effusive of consolation, that picture to our mind the soothing image of a mother sustaining in her arms, with a vigilance that never tires, her infant child.—If we lead our attention to the seat that was directed to be placed above the Ark, we shall meet with an increasing evidence of the parent-lenity of the universal Father. This local residence, where God was to commune with man, where his awful presence was more immediately signified; this seat of a seemingly approximated observance, was not to assume the appearance of a tribunal; but was ordained to take the cheering appellation of the mercy-seat!"

Again, at page 6—

"In this portrait of the Deity, the awful attributes are cast into distance, and softened (like the extremities of the horizon) into an azure obscurity; while the attribute of mercy, as a principal feature, is brought eminently forward, to delight and detain the eye of gratitude."

Mr. J. follows Mr. Gibbon in reprobatiug the Crusades, we equally differ from both writers. These expeditions were productive of the greatest benefit to society: nothing can be more false, or prejudicd, than the light in which they have been placed both by Voltaire, and by Gibbon, who condescended to follow him.

But the most agreeable part of our task is to point out some of the interesting and excellent passages, which this little volume contains. The institution of the Knights of Malta is thus described.—

"The coeval institution of the Knights of Malta must not be omitted in the narrative of manners, events, and establishments, which are not stamped with the seal of Christian philanthropy. The Order of Malta was indeed perfect in its seminal principle, but vicious in its expansion. The Order was first known by the title of the Knights Hospitallers of St. John of Jerusalem, was afterwards distinguished by the appellation of the Knights of Rhodes, and then assumed the name of Malta. The Knights originally formed themselves into an association for the generous purpose of attending the sick, and relieving the poor. Several persons of eminent birth, who had accompanied the illustrious Godefrey in the crusade, became members of this institution, and consecrated themselves at the altar of Charity to a perpetual attendance upon the sick, the old, the indigent. Raymond Dupui, a gentleman of Dauphiny, the first Grand Master of the Order, proposed to the Knights to resume their military character, with a view of exerting it only against the infidels. He divided them into three classes; the first division consisted of the Knights distinguished by their birth, and by their rank in the army; the second division was composed of priests, who were to minister as chaplains; the laymen, or serving Knights, formed the third division. This wandering, seafaring monastery was bound by the oaths of celibacy, obedience, and resignation of hereditary property. Not to dwell on the heterogeneous assimilation of a monk soldier, it will be sufficient to observe, that a solemn engagement to wage an eternal war was a deviation from the placid tenour of the Evangelic page; and the cruelties exercised towards the captives who refused to become Christians was blending monastic bigotry, with a systematic piracy. Yet Europe applauded the exploits of this military order; the sons of the nobility from every kingdom hastened to their banner; contributions flowed from every quarter; approbation and indulgences from Rome."

The character of Montaigne is well drawn.

"Montaigne, who was born ten years after the death of Sadolet, was not only an ornament to literature, but also a strenuous advocate for revealed religion. The gentlemen of Port Royal (that nest of hornets) have attacked his moral character as an author, but he has survived their wounds. The Abbé Talbert, one of the preachers at the royal chapel at Versailles, has ably vindicated the memory of this illustrious moralist in a pamphlet published 1774.

"Without departing from the ritual economy of the established religion of his country, Montaigne reprobated every step that led from Evangelic forbearance to legal intolerance; he lamented the disasters that had fallen on his unhappy countrymen, *the Vaudois*; he said that religious errors were mostly grammatical, and did not obliterate the main sense.

"Montaigne was endowed with a penetrating and self-directed mind; French writers are under frequent obligations to him, and some of their brightest passages are little more than transpositions from his works, concealed in modern phraseology; yet so concealed, that they still disclose their origin, and, like the gales in Milton's Paradise, 'whisper whence they stole their balmy spoils.'

"In turning our view from the restrictive tenets of monastic belief, and from the rugged discipline of Calvinistical reform, our ruffled sensations are calmed when we peruse the soothing pages of this amiable moralist. He advises his reader to familiarize himself with the idea of death, not for the purpose of depressing, but of exalting the mind. By the improper notion we entertain of the concluding period of our existence, we resemble, he says, the passengers in a ship, to whom their native town, the well-known fields, and every endearing object appear to recede. Hence arise those clouds with which death is enveloped, and hence we shudder at the very name of death: whereas, he observes, that if we were divested of acquired and artificial notions, we should look upon the close of life either as the period of a miserable existence, or the passage to a better. Consigning himself, with a generous confidence, to the mercy of his Creator, this illustrious moralist denominates the last day of existence '*le maître jour*,' the master day, to which all the preceding days refer, and to which they bequeathed their little portion of merit.

"Montaigne laments that melancholy is so frequently the companion of virtue; he laments that the duties of religion are attired in the garb of mourning; which he calls, '*sot et vilain ornement*.'

"He directs (as far as he is able) the tenour of his social conduct to flow in harmony with these words: 'Forgive us our trespasses as we forgive those who trespass against us;' which words, he says, denote, that the most acceptable sacrifice we can make to our Creator is a heart pure of malignity and free from the desire of revenge.

"He deprecates the custom of imputing every unfavourable incident to the vengeance of God. This perpetual recurrence to the vindictive interposition of the Deity, diminishes the sense of gratitude which is the germ of religious affection. He jocularly complains of his *curé*, who, when the frost had touched the good man's vines, attributes his misfortune to the vices of his parishioners.

"He reprobates the severity exercised towards schoolboys: the mild moralist maintained, that rigour was akin to tyranny, and impressed the seal of servility on the pas-

sive and youthful mind. He would have the schools strewed with flowers, rather than with the crimson twigs of broken rods. He wished to see the walls enlivened with the festive forms of Flora, of the Graces, and of the allegorical images of Gaiety, Sport, and Joy.

"The eminent conductor of the school at Tunbridge, in his first volume on Liberal Education, page 23, breaks out into a beautiful and pathetic effusion on this subject: "Children should not be punished for mere accidents, little noises occasioned by high spirits, lapses of memory. Forbid it humanity! forbid it ye mothers! who have sent your smiling pledges from your breasts: forbit it He who took the infants up in his arms, laid his hands upon them and blessed them!'

"In deploring the misfortune of his times, guilty of civil war occasioned by religious distinctions, Montaigne paints in strong terms the contrast of a pacific religion with a bloody apostleship.

"In recommending a reverential attention when we peruse the sacred pages, he says the reader should prepare himself for that lecture by an elevation of soul, and by repeating the words pronounced at the altar, *Sursum corda!*

"This passage Mr. Burke had probably in his recollection, when at the close of his eloquent speech on the conciliation with America he says:

'If we are conscious of our situation, and glow with zeal to fill our place as becomes our situation and ourselves, we ought to auspiciate all our proceedings on America with the old warning of the church, *Sursum corda!* We ought to elevate our minds to the greatness of that trust to which the order of Providence has called us.'

"Montaigne was a favourite author of the celebrated Barrow. The London edition of the Essays, published 1754, was printed from a copy which had been in his possession, and some quotations were corrected in the margin by the Doctor's own hand, &c."

We transcribe the following opinion with a perfect conviction of its truth, and hope it will have a proper weight on the generality of clerical writers:

"I now enter my protest against the expositions of the New Testament with which we abound, because they wean the mind from a more nutritive sustenance, the simple and affecting language of our established version. The expositors offer us for the beautiful narrative of the Evangelists a cold imitation, a diffuse and languid parody: they call to my recollection a passage in Aristophanes, where, bantering the Athenians on the eager attention they paid to lecturers, to literary paraphrasts, and prolix interpreters, he compares his countrymen to an infant who cannot relish his food unless it has been previously *munched* by the nurse.

"I am happy to find the learned author of the Philosophy of Rhetoric corresponding with my opinion; I transcribe the following passage from his valuable work. After having quoted from St. Luke, 'Consider the lilies how they grow,' &c. he adds, 'Let us here adopt a little of the tasteless manner of modern paraphrasts by the substitution of more general terms, one of their many expedients of infrigidating; and let us observe the effect produced by the change. Consider the flowers how they gradually increase in their size; they do no manner of work, and yet I declare to you, that no king whatever in his most splendid habit is dressed up like them. If then God in his providence doth so adorn the vegetable productions, which continue but a little time on the land, and are afterwards put into the fire, how much more will he provide clothing for you?—How spiritless is the same sentiment rendered by these small variations? The very particularizing of to-day and to-morrow is infinitely more expressive of transitoriness than any description wherein the terms are general, that can be substituted in its room.'

"I shall now adduce some citations illustrating my objection to the labours of the expositor, and shall transcribe them from the Exposition of Mr. Gilpin, a gentleman to whom literature acknowledges various obligations: but the tyranny of a name must not overawe the investigation of truth. Although Mr. Gilpin is my text, my deductions apply to every expositor.

"A beautiful elegance of expression frequently occurs in the Gospels, which no paraphrase can equal.

"St. Matthew, chap. v. ver. 27. 'Ye have heard that it was said by them of old time, Thou shalt not commit adultery; but I say unto you, that whosoever looketh on a woman to lust after her, hath committed adultery with her already in his heart.'

"This hallowed observation, flowing from the lips of purity, and clothed in a language exquisitely adapted to the thought, is thus rendered by the expositor:

"'The Jewish doctors confine the seventh commandment to the crime of adultery; but my institutions go farther. They set a guard upon the heart. The impure thought, when cherished, becomes guilt.'

"St. Matthew, chap. vi. ver. 19. 'Lay not up for yourselves treasures upon earth, where moth and rust doth corrupt, and where thieves break through and steal: but lay up for yourselves treasures in heaven, where neither moth nor rust doth corrupt, and where thieves do not break through and steal, For where your treasure is, there will your heart be also.'

"The luminous simplicity of this passage, calculated to arrest the attention of a child, is paraphrased in this manner: 'Thus spiritualizing your minds, consider not your worldly goods as your treasures; they are liable to many accidents. But consider the enjoyments of a blessed futurity alone in this light, which are the only treasures not subject to change. And of this be assured, that wherever your treasure is, your heart and it will always be together.'

"Is the inelegant combination of words in the last lines, *your heart and it will always be together*, easier of interpretation than the corresponding passage in the Evangelist, 'where your treasure is, there will your heart be also?'

"Mr. Gilpin remarks, page the 22d, that 'no exposition can do justice to the original in the concluding verses of the sixth chapter. But for the sake of uniformity,' he adds, 'I am obliged to modernize them.'

"Does not this acknowledgment naturally suggest the question, why a paraphrase is adopted which necessarily excludes expressions and sentiments the best empowered to awaken the finer sensibilities?"

MR. EDITOR,

If the two following articles will suit the purpose of your Journal, they are at your service.

Your constant reader, P.

On the Vaccine Inoculation.

When Io's charms had amorous Jove estranged,
Saturnia to a cow her rival changed:
Then Venus cried, 'The beauty you deface
'Shall shield the beauties of a future race,
'Her favour'd offspring shall from earth remove
'The *direst foe* of Beauty, Life, and Love.

On the Island of Lampedosa.

It has been supposed that Lampedosa, called by the Romans Lopedusa, is the island of Calypso, the Ogygia of Homer. If it be so, it is very singular that it should have been mentioned in the same sentence with this country by Plutarch. In his treatise on the appearance of a face in the orb of the moon, he says:—

Ωγυγία ἐξέμων ἡμερῶν πέντε Βρεττανίας ἀπέχουσα πλόῳ πρὸς ἑσπέραν.

"Ogygia is distant five days voyage from Britain, sailing to the westward." In an account published a few years ago of the Turkish dominions by Mr. Eston, our resident at Constantinople, there is a very favourable description of Lampedosa, the possession of which is stated to have been much coveted by the Russians.

Mr. Editor,

In turning over very lately a book which had not been opened for some years, the manuscript of the following fragment presented itself; if you think it worth a place in your Journal, the owner may perhaps find his own restored. I am your's, &c.

L. Y.

* * * *

Let me ascend thy radiant car,
And whirl to distant Tchilminar,
Whose ruin'd fanes with wild amaze
Fill the lost traveller's earnest gaze,
By dubious glimpse of labouring moon,
Disastrous roaming night's high noon.
There check our speed, and pacing slow,
About the mouldering precincts go;
Till gliding o'er the mountains near,
Some serviceable Ginn appear,
And, pointing to the rocky wall,
Disclose its sculptur'd portal small.
Inspir'd by Thee, I'd onward hie,
And seek audaciously to spy
The hidden subterraneous caves,
Which constant clear Kalismir laves.
Then dauntless pass the pillars nine
Inscribed with many a mystic line,
Till all before my wond'ring eyes
The throne of Suleiman arise,
With roofs embowed of solemn state,
On clust'ring columns hugely great,
Stupendous arches vaulting high,
Where cressets twinkling mock the sky;
Long aisles of dim religious hue,
That all concentring lead the view,
To pause upon a wonderous dome
O'er-pictur'd with events to come;
Sights that each trembling sense appal,
And ev'ry mental pow'r enthrall,
Till recollection scarce can give
The soul intrans'd to say, I live—
Live, to survey the emeral sheene
That gleams from lucid shrines serene,
Where the sage prophet's corse is laid,
To whom vouchsafed immortal aid
The Peris in propitious hour,
By whose cabalistic pow'r
Marble mountains rent in twain,
Withheld no variegated vein,
To quaint each maze, and freckful hall,
Where, prompt to hear th' Enchanter's call,
Strange fantastic rites are done,
By antic sprites that dread the sun.

* * * *

NOTICES.

Society of Antiquaries, May 26.—At this meeting was read a paper on an Hieroglyphic, representing the Winds in Egypt, from Easter to Pentecost.—Also, a second Paper on an Antique Lamp, noticed in a former Number.

In the course of last year a colossal statue of the present King of Spain, was cast in bronze at Mexico, by Dr. *Manoel Tolfo*, director of the Academy of Sculpture, at the expence of the Marquis de Branciforte, late viceroy of Mexico.

Mr. *Sewergin*, member of the Academy of Sciences at Petersburgh, has published in the Russian language—"*Travels in the Western Provinces of Russia*."

MANNERS.

AFTER having continued these lucubrations on common life and manners for nearly half a year, not, we trust, with the disapprobation of our readers, we should be sorry if the unfortunate revolution which has taken place in public affairs, among its other *fatal* consequences, shall have the effect to alienate us from an attention to the lesser duties, and convert us into a nation of stern politicians. As we devote the various departments of our Journal to the *quicquid agunt homines*, we hope that we shall still find some who have a few minutes leisure to accompany us in these humbler walks, and relax from their graver studies in the amusements of domestic life.

Politics, indeed, as the science of government and warfare is usually called, forms a very conspicuous characteristic of English manners, and about a century ago was a favourite topic with the Essayists; and that the *rage* is not much diminished, the last six weeks have sufficiently demonstrated. But although we can boast of many characters among us who belong to the family of Addison's *Upholsterer*, yet we enjoy additional inducements and incitements to the study of politics, with which he was unacquainted. His anxieties seem pure and disinterested; the crown of Poland was a serious object with him, and the letters from Bender afforded matter of real anxiety; he felt all the horrors of a storm in the Black sea, and his loyalty to the king of Sweden deprived him of his wits. In our days our anxieties, without being less acute, are fixed on one subject, and every piece of news is good or bad only as it affects the funds, although we know that these same funds have long been under the management of a set of worthy gentlemen, who at the subscription houses in St. James's-street, or in the booths at Newmarket, would be called by a name of a very unseemly kind. In the time of the upholsterer the question was, *What news?* in our days it is, *How are things?*

We have, however, some politicians who still belong to the old school, and are at any time ready to sacrifice their lives and fortunes, that is, to quit their lawful employments and get drunk, in pursuit of the news of the day: men who affect a wonderful concern for the affairs of the nation, while they neglect their own, are most skilful financiers, except when they are entrusted with money and fully capable of governing kingdoms, although they show neither power nor wisdom in their own families. In former

days such men were allowed to exert their imaginary powers, and demonstrate their ideal wisdom for the benefit of clubs and alehouses, but of late years, the disturbers of mankind set them upon other employment, and finding them apt tools for delusion and mischief, created from them a *corps* of *Non-Contents*, whose contrivances it became necessary for government to prevent or suppress.

Of real patriots, the race, we hope, is far from extinct; but of *talking* patriots there are perhaps fewer than in former days. Indeed they are not the sort of deceivers who are likely to last long in any country. Their artifices became every day more difficult to conceal, and the numerous instances of apostacy which the present reign only has exhibited, have operated as *canons of criticism*, by which a new attempt to delude the populace may easily be detected. We would not, however, be thought to insinuate that the age of political imposture is entirely gone. The propagation of ignoramuses is not yet so sufficiently checked as to produce that happy effect, and we still have a numerous populace who believe obstinately in the very impositions which they see every day exposed.

The slight-of-hand tricks of the hustings are yet wonderful in their eyes, and they are as ready to be taken in by a speech-maker, as by a ring-dropper. Of this we had very recently so many instances at an election not many miles from town, as to induce the belief that the humbug-days of Wilkes were returned, with their full complement of credulity.

It would be, particularly at the present crisis, of great utility to the country, if those who *talk* politics would occasionally contrive to *act* politics. But unfortunately political zeal evaporates in talking, as the wrath of some part of a certain sex is said to do in scolding. In the late memorable contest, we frequently observed that public alarm and anxiety were only words to express a certain jargon borrowed from news-papers and speeches, in which neither the heart nor the understanding had any share. Even religion, the most sacred of all duties, and social order, the principal beauty of human life, were mere cant in the mouths of profligates and rakes, who were perpetually insulting decency in private, or exposing in assemblies and courts of justice their crimes against the laws of God and man. It must be confessed, indeed, such cant was not peculiar to this country, or rather perhaps we borrowed it from the enemy, who perpetually told us they were fighting for a *republic*, and now assure us that they have acquired *liberty*.

It has long been a mistake to confine hypocrisy to religion only, while there is an hypocrisy in political feelings, which is far more common, because far more profitable. It is truly laughable, for example, to see a man quit Newmarket or the gaming-table, to cry for an hour over the impending dangers of his country, and return again to the sport with redoubled ardour. Nor less laughable is it, when a patriot professes to have profited by experience, and to see things in quite a different light, by virtue of an appointment announced in the Gazette. "Such men," says an eminent writer, "*may* be convinced, but they do not come honestly by their conviction." It is a good sign when a man is the *better* for a change in his opinions, but it is suspicious when he becomes at the same time *richer*. Where wealth is the end proposed by public services, there is generally a wilful perversion of intellect; and Sir ROBERT WALPOLE, one of the greatest statesmen of the last century, who found it necessary sometimes to employ that species of influence, declared that it was often more expensive to make a man vote *with* his conscience than *against* it.

The time, however, is now come when these inferior and baser considerations will give way to a sense of general danger, not expressed in words, but in actions, with an honest feeling, and an independent spirit. The voice of faction, we trust, will no longer be heard; at no former period of our history could that voice sound more harsh and grating in the ears of an Englishman, than at present.—But perhaps we are wandering out of the record, or invading the province of our colleagues in this Journal, by these remarks.

The world of pleasure, it is more within *our* province to remark, has been disturbed in some degree by the changes in public affairs. Those who were beginning to be so enraptured with the gaieties of a French metropolis as to fix their winter and spring residence there, have been obliged to leave it with a precipitation extremely vulgar and troublesome.* The amicable interchange of fashions and follies must be again interrupted, and we are driven within the narrow resources of Bond-street or Pall-Mall, and obliged to feed on our own discoveries and scanty inventions. The rivalship we had begun, and which, according to all accounts, promised to end in a decided superiority in our favour, is now left without a determination. What follows, but that we become melancholy, give up all the pleasures of masquerades, fetes, public breakfasts, routs, and subscription-balls, in order to economise, and answer the demands which our country will soon make for the general defence?

In answer to this question, we have only to appeal to past experience, and we hope not without a consoling effect. Although the late war was attended with *considerable* expence, and some *occasional* losses and disappointments, it did not very impertinently interfere with the subjects we have just enumerated; and we are greatly mistaken if during its progress the world of fashion did not acquire a higher degree of importance than in former days. It was during the invasion of Germany, Italy and Switzerland, that not only the *numbers* which assembled at routs were given to the public, but even the *names* of the parties; and it was between the battle of Marengo and the Northern confederacy, that the pleasures of a card-party first received the protection of constables and Bow-street officers. It was when Europe was overrun by the modern Goths and Vandals, that anxiety for admittance to a ball or a masquerade drove some to the desperate resource of forgery, and what had been hitherto confined to bank notes and India bonds,

* This remark shows that in these wonderful times we know not "what a day may bring forth." The day after this was written, we learned that all the English in France had been arrested by order of the First Consul. Perhaps, before our readers have perused these lines, he may have repealed this decree. Such changes, Dr. Willis says, are not uncommon.

was now employed to smuggle a domino, or partake of a dance. These are but a few of the remarkable coincidences between the events of war, and the arts of peace, which took place during the late contest, and we are persuaded that our readers can recollect many more as striking. In particular, they must remember, that by the singular ingenuity of our dramatic managers, a day of thanksgiving to Almighty God for the mercies of the nation was made, literally, *to end in a farce.*

There appears no great reason, therefore, for despondence, or to suppose that lowness of spirits must necessarily result from the contents of the London Gazette, or the Hamburgh mail. The world of fashion is insulated from the cares of states and nations. It has its peculiar anxieties, but they interfere not with the affairs of the field or the camp. It has its overtures, its *projets*, and *contreprojets*, and its treaties, but the objects of them are neither peace, indemnity, nor security. It troubles not itself about islands, colonies, or foreign settlements, and has been known to be more zealous about the site of a *coach-stand*, than the *quantum* of a subsidy. There can be no doubt, indeed, that it would repel an invasion, or any attempt to encroach on its privileges, but such invasions and such attempts are not of the kind which may probably hereafter alarm our coasts, and be dissipated by our navy. R. S.

POLITICS.

IT is not a fair statement with regard to Malta, which is made by the gentlemen who think that hostilities have been precipitated. We are not plunged into war on account of Malta. It might, and would have been given up frankly, had France shewed a disposition to friendship and peace, a disposition in which we could confide, a disposition to correspond with us in mutual civility. But if the evacuation of Malta be only to afford facilities to the French to do intended mischief to us, if the evacuation of Malta is to be followed by the capture of India, then it is for India that we go to war, not for Malta. It will not probably be said that India is a portion of the interests of this country, too insignificant to deserve the expence and hazard of a war. It is not probable that this will be said, even by those who do not think that India is a vital principle of the British grandeur and power.

It cannot be denied that evidence of hostile intentions may be received, so strong as to authorize in a state measures of prevention still stronger than the retention of Malta. A fatal stroke may be aimed at a nation either secretly or openly, which nothing but the most rapid and violent movement can ward off. A stroke may be meditated too as well as aimed, and it may be wise to arrest the arm even before it is lifted. The intention therefore of France to do evil to this country, and the degree in which this hostile intention may be carried into effect, without our immediate interference, are the questions on which the wisdom of the nation is called to decide.

It is clear that the evidence of hostile intention, which is not manifested by a decisive act or declaration, but to be gathered from a long course of actions where a multitude of circumstances are to be accurately weighed, and a general estimate formed of them all taken together, is an extremely nice and difficult subject. To such circumstances one man attaches one degree of importance, and a different man another. If we consider how difficult it is to reconcile the opinions of two men on many very simple points of ordinary life, we shall not be surprised to find it difficult to reduce all men to one opinion on so complicated and delicate a question, as whether the evidence furnished by France of mischievous intentions against this country, be great enough to require hostilities as a measure of prevention?

Mr. Fox says, that France has disclosed a wish to have Egypt; but that a wish is not necessarily followed by an enterprise for its gratification; that a plan was formed by France in 1786, for obtaining Egypt, and that the ministers of that time, instead of going to war, negotiated a commercial treaty with France. Perhaps they did very right; and yet it may be true, that the very wish to have Egypt at present may be a sufficient cause of war. If at that period so many difficulties opposed the execution of the plan that it was impossible to take place even if we did not involve ourselves in the business; and if, on the present occasion, nothing is interposed between the wish and the gratification, unless we interpose ourselves, where is the similarity of the two cases? Men, in one sense of the word wish, may be said to wish for every thing which they have not. And in that sense there are many wishes which are not at all to be regarded. Any man may wish for the money in my pocket. That gives me no uneasiness. But if I know that any man wishes to pick my pocket, it is necessary to be on my guard against him. If, however, I know, that he has no chance of getting me in a situation to accomplish his design, still I pay very little attention to the circumstance. But if I come to be so placed with regard to him, that my pocket is at his mercy unless I clap my hand on it, and denounce him to all around me, I take these necessary precautions. Is not France then in this last situation of the pickpocket? Or does Mr. Fox say that France is no pickpocket, but an honest woman, and though she had her hand in our pocket, she would not take out a farthing? Mr. Fox does not say so. He knows that France not only wishes to obtain Egypt, but wills the means, and will not be restrained by the consideration of their honesty or dishonesty, whenever she conceives them to be in her power. We wish that any one would point out to us what is to prevent Franec from taking possession of Egypt if we do not. It is not her interest, says Mr. Fox, and her expedition to Egypt was a very impolitic measure. In our opinion, too, it is very unwise in the pickpocket to be a thief, and we are persuaded that honesty is the best policy: But this opinion will not protect our pockets as long as the thief thinks otherwise. We are decidedly of opinion, that were Egypt voluntarily given up to France, she ought, in sound policy, to refuse it. But do the rulers of France think so? Mr. Fox adds, that Bonaparte tells us it is not necessary for him to go to war to obtain Egypt, because it must fall to him without

a war. Here then is the answer. Since in our opinion that fall would be to us very injurious, we must take what steps are necessary to prevent it. The retention of Malta is considered as that step. But if you retain that, says Bonaparte, I go to war with you. On what account? On account of Egypt undoubtedly Of what utility is Malta to France on any other ground? Does she for any peaceful purpose want a new harbour in the Mediterranean, possessing such admirable ones already? The importance which France attaches to our evacuation of Malta,—this single circumstance is in our opinion the strongest possible proof of her hostile designs against Egypt, and the expedition with which she means to put them in execution.

But here Bonaparte talks of the non-fulfilment of treaties; and magnanimously resolves to go to war rather than permit so vile a precedent to be set in the national transactions of Europe; nay to run the extraordinary risk of one hundred to one of destroying himself and his army, that he may resist so infamous a species of conduct. Virtuous, consistent gentleman! With what delicacy and strictness has he conducted himself by the faith of treaties in the affairs of Holland and Switzerland! What an admirable guardian of the public virtue of Europe have we got in this conscientious, honourable person! His conduct puts us in mind of the strumpet who attacked an innocent woman on the slander of some improper behaviour. If I were guilty, says the innocent woman, you, of all others, should be the last to except to me. What! says the other, have not I been known to be a common w—— for these twenty years; and have you or any one else a title to reproach me?

Let us see, however, whether a fair review of the circumstances of the case will not prove Bonaparte, not the British ministers, to be alone guilty of infringing the treaty of Amiens. It has been long the public law of Europe, and is received at this moment as a just principle of action by all her greatest statesmen, that an aggression made by any of the greater powers upon any of the smaller, authorises the interference of other powers, even with hostilities, if these be necessary. This principle is derived from the idea, and is supported by the truth, that an aggression upon the smaller states is in fact an act of hostility against the general peace, and by consequence against the immediate interests of each particular state. According to this principle, when France seized upon Piedmont, Parma, and Placentia, she was guilty of an act of hostility against Great Britain, as completely as if she had landed 20,000 men in Ireland to assist the rebels. Had France immediately upon signing the definitive treaty recommenced hostilities by such an act, would she not have completely annulled that treaty? and before we could have taken any steps to chastise her, would it have been necessary to strip ourselves of every advantage which we had consented to resign as the purchase of peace? No, by the first act of hostility she forfeited all claim to demand the renunciation of these advantages, and the first measure to be taken for our own security was to confirm ourselves in the possession. Even Mr. Fox allows, in the most full and explicit terms, that aggressions upon the smaller states call upon the greater states for resistance, and justify hostilities; because such aggressions are in fact hostilities against these states. Why then does he oppose war against France, on account of her behaviour in Holland, Switzerland, and Italy? not because such war would be unjust; that he never insinuates, but because we cannot remedy the evil by going to war; because our powers are not applicable to that particular purpose. But if you can, says he, associate with yourselves another power whose resources are suited to that purpose, as Russia, make use of his peaceable endeavours to obtain your end, if it can be obtained by peaceable endeavours; if not, join your forces to his to restrain by violence the ambition of France, and to secure the independance of Holland, Switzerland, and the tranquillity of Europe. Such language implies, in the clearest manner, that the behaviour of France in Holland, Switzerland, and Italy, was in reality hostility against every other state in Europe; against us by consequence among the rest; entitled us therefore to make use of all the rights of war in our own behalf, of which the retention of the advantages in our hands was one; and to make use of those rights of war with the more expedition, as we were the most immediately threatened by France.

As to the value of Malta as a bulwark of Egypt, and of Egypt as a bulwark of India, we think that doubt may very reasonably be entertained. It has by no means been made out to our satisfaction that Malta contributes to the defence of Egypt, or Egypt to the defence of India. But at the same time, as little has it been made out that they do not so contribute. Now, in true policy, this very doubt is a motive for war in their defence, as strong as the actual knowledge of their utility; because so long as they are not proved to be useless, it is to be presumed that they are not so; and because it would be wretched to expose ourselves to the uncertain chance of evils, when we have it in our power to exclude even that chance.

Doubts too have been entertained with regard to the value of India, and of all distant colonies to the power and happiness of the mother-country. This is a question too extensive to be investigated in the present discussion. But fortunately it is not necessary. For no one will say that on the strength of these doubts we should give India to France, if she is pleased to desire it. The second part of the alternative is to defend it by whatever means we possess. The sentiments of our enemy deserve some attention. Now unquestionably it is not obscure that France considers India as a grand source of the power of this country; that she considers the possession of Egypt as a step of great consequence in her own passage to this important acquisition; and that she considers Malta in our hands as a mighty barrier in her way. But more on this point is unnecessary; for no one insinuates that every effort which Britain can make ought not to be used to keep India out of the hands of France. India stands so high in the estimation of our countrymen, it has turned so much into a particular channel the industry of this country, that a sudden change with regard to it, would produce the utmost disorder and mischief. Were it even proved to be a weak upon

the body politic, which is exhausting its vital juices, the patient might bleed to death, were it cut off by the stroke of an enemy's sword, instead of the slow and cautious knife of the anatomist.

The question of Malta, then, is in our opinion clearly decided without any reference to the disputable articles of provocation, or right between the two countries The positive acts of France with regard to her weak neighbours transferred to every state in Europe the rights of war against her, if they chose to use them; and her declared intentions with regard to a great and favourite branch of the interests of this country, did not leave the use of these rights a matter of option with us, but imposed it upon us as a matter of strict necessity, as an unavoidable measure of security to a vital part, in the estimation of the greater part of our countrymen, of the British empire.

Let us listen, however, to the objections which have been made to the stress laid upon the other charges against France in the present dispute. Mr. Fox went so far as to say that the guarantee with regard to Malta was not an essential condition in the stipulations of the treaty of Amiens; and that if the other conditions were fulfilled we were bound to evacuate the island, whether any guarantee was obtained or not. We will venture to say, that if Mr Fox understood thus the treaty of Amiens, he was the only man in his Majesty's dominions who did so. Sure we are, that his fellow-subjects regarded the guarantee as the most important point in those stipulations; and that without that point they believed it might as well have been given to France at once. The other conditions were, that it should be occupied by Neapolitan troops till arrangements could be made for delivering it to the knights of St. John; that it should then be surrendered to the knights, and the Neapolitans quit the island. If no further stipulation remained, it is clear that the island was given up in full sovereignty to the Knights. They were entitled, therefore, to transfer that sovereignty to whomsoever they pleased. That both their interest and inclination would quickly lead them to make that transfer, and to make it to France, is a point that does not admit of dispute. If Mr. Fox then knew that it was even a subject of doubt whether the independance of Malta was not a necessary safeguard of our East India possessions, and interpreted as above the treaty of Amiens, what words can express the nature of his conduct in voting for the treaty of Amiens; in not explaining to his countrymen, what they did not understand, that they had undertaken to give up Malta without any guarantee? But we do not believe that Mr. Fox so interpreted the treaty of Amiens, when he voted for it; we do not believe that such is his interpretation even now; we are persuaded that it was only the inconsiderate assertion of the ardour and hurry of debate. At any rate he need not expect many converts to the doctrine that the performance of any two conditions of a contract, supersedes the necessity of performing a third, when that third is the most important of all, and the other two are of no use without it.

Mr. Fox said, that the commercial agents ought to have been turned out of the country, and then remonstrances made. Very true. But is the mission of agents, who ought to be turned out of the country, and of whose mission an account is given to you perfectly nugatory, and obviously false, no cause of suspicion, no symptom, taken with other evidence, of evil designs in agitation by the country guilty of such a breach of all decency as to send you these insidious inmates?

We agree with Mr. Fox that the demand respecting the liberty, or if any one chuses, the licentiousness of the press, was to be despised for its ignorance, and flatly refused. But is the spirit which accompanied that demand nothing in the estimation of a wise man? The spirit which could dictate towards a great nation such a speech as this, "Alter some of your favourite laws that you may avoid my displeasure," are there no circumstances which could render this spirit an object of some regard? If you know by other evidence that the party who uses such language earnestly desires to injure you, does not such arrogance clearly indicate that he now thinks himself not far from the point of being able to injure you? Does it not therefore call upon you to stand vigilantly on your guard? As the same observations apply to the interference with regard to the exiled princes, we think it unnecessary to repeat them. It is not the demand which is worth a moment's regard; but what the man, who can think himself entitled to make such a demand, is likely to attempt.

Thinking it unnecessary to repeat the observations which have been so often made on the different indications of hostile design manifested by France, we shall only call the attention of our readers to a fact, which we are surprized has not been brought forward already, and which, in our opinion, did it stand singly, ought to excite watchful solicitude, but which, corroborated by so many other concordant testimonies, speaks a language not to be misunderstood. The first year of the French republic concerning which any distinct account has been made up of the different articles of the public expence, is the year 9, the last year of the war. In that year the whole charges for the army amounted to 238,000,000 francs, and for the navy 91,000,000 francs. The next year was the first of the peace; and as the accounts of the army had to be wound up, and the troops to be drawn within the territory of the republic, and as an expensive expedition was fitted out to the West Indies, it was not to be supposed that this department of expence could be much, if any thing, reduced during that year. Accordingly the expence of the army fell only to 210,000,000 francs, and that of the navy rose considerably, to 105,000,000 francs. But during the next year, when all extraordinary expences were removed, a very material reduction might have been expected. What then is the fact? In the budget for the current year, published in the beginning of March, instead of this considerable reduction, we find a credit opened for the expences of the army of 243,000,000 francs and for those of the navy of 126,000,000 francs. In a time of profound peace we find the charge for the army raised above its amount in the most expensive year of the war. But the navy is the most extraordinary circumstance.

The sum demanded for the service of the navy during the present year is considerably more than one third greater than the expence of the navy in the last year of the war. We may forbear if we please to give the first blow, but unquestionably we cannot consider a neighbour of this kind as in a state of peace; and we cannot forbear making such provision against his blows, as must render the state of peace not much less exhausting than the state of war.

Is it then our opinion that war is the only means of that security which we seek, and that no terms of accommodation ought to be listened to? Unquestionably not. We are of opinion that terms of accommodation ought not only to be received, but to be courted. We are of opinion that nations ought to act towards one another with that magnanimity which distinguishes the accommodation of differences between two wise men in private life; of whom he who is the most eager to exchange explanations, to forget injuries, and to smooth the way to a good understanding, is universally regarded as the most noble-minded, the most heroic, and most honourable. Nothing farther ought to be required from France, than what is absolutely necessary to our security; and every caution should be taken to put her pride and vanity to the least expence possible, in giving up those means of security. At the same time we are very much afraid that the vanity of that country is blown up to such a size, that she will not consent to give up the securities which we ought to receive; we believe that this vanity makes both the nation and its chief conceive that they may acquire a new triumph by prevailing over this country, and that they would rather deprive us of the securities which we have, than allow us any new ones. We fear, therefore, that it is only the dear bought experience of another war which can convince France that her late successes were more the effect of accident than of strength, that it is her real interest to be quiet, that she must expose her weakness by a new contest, and entail on herself that weakness for many years to come, by wasting the last remains of national wealth, and the seeds of future improvement.

There is one event capable of imposing a check upon the spirit of that country; we mean the effectual interference of a powerful arbitrator. Every man must rejoice to learn that the Emperor of Russia has in part engaged himself in this character. We do sincerely hope that this prince will feel it to be beneath his dignity to interfere in a low and subaltern capacity, with some cold and vague proposition, which can do no good. If he speak at all, he ought to speak the language, not of one who ought to dictate, for that he has no title to do; but of one who has a right to be heard with attention and respect; of one to whom the repose of Europe is not indifferent; and who has an interest and a duty in repressing the efforts of those who put it in danger. If this monarch do interpose heartily, if he shew himself to be in earnest for the preservation of peace, if he be prepared to consider as his enemy the party which shall refuse to submit to reasonable terms of accommodation, we do not yet despair; peace may still be restored, may be established more strong and perfect than it has hitherto been. But from all that we have yet been able to learn we do not feel ourselves entitled to conclude that this prince is likely to interfere with that interest which is necessary to give effect to his mediation. We fear that he regards the quarrel too much as a quarrel whose effects belong only to Great Britain and to France, and with which their neighbours are very little concerned. If this be the case, we consider war as inevitable. The pretensions of France and England cannot be adjusted without it.

NOTICES.

The late revolutionary commotions at Naples have found an historiographer in an anonymous French writer, who has lately published, "*Mémoires pour servir à l'histoire des dernieres revolutions de Naples, &c. recueillis par B. N...., témoin oculaire.*" This "*témoin oculaire*" has, however, scarce any other merit than to relate with a tolerable share of impartiality events recorded in gazettes and news-papers, with the exception of a few facts less known; for instance, that the Court at Palermo took but little notice of the insurrection organised in Calabria in favour of the King by the famous priest *Rinaldi*, and returned no answer to his proposals, until they were at last taken up by Cardinal Ruffo, of whom the author draws a very unfavourable picture, and their success powerfully promoted by his personal appearance in Calabria.

We learn from Russia, that the Bull, received from Rome under the reign of Paul I. which sanctions the canonical existence of the Order of Jesuits in that country, has lately been published, and that the order enjoys at present the same protection which it experienced under the preceding reigns. *Father Gruber*, rector of the Petersburgh college, succeeds the late General of the order, whose see is at Polocz, and his successor at Petersburgh is *Father Hochbichler*, late Professor at Augsburgh. The Emperor has also directed the Senate to consider of the best means of forming settlements of missionaries on the borders of China.

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And at St. Helier's, in the Island of Jersey, on the 18th of July, 1802.

By RICHARD VALPY, D.D. F.A.S.
Rector of Stradishall, Suffolk; and Master of Reading School.
With Notes by the Author.

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Et me fait trouver la vie
Dans les horreurs du trépas.

J. B. Rousseau, Odes Sacrees.

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PHYSICS.

1. *On the Theory of Sound.*

NEWTON first showed that sound is conveyed through a homogeneous elastic medium with a uniform velocity, equal to that which a heavy body would acquire by falling through half the height of the medium causing the pressure. By applying this principle to air, and another, that the elasticity of air is proportional to its density, he proved that sound ought to pass through it at the rate of about 900 feet in a second. The improvements in mathematics have enabled succeeding geometricians to give a more rigorous demonstration than was possible for Newton. The consequence has been the very result announced by Sir Isaac. This is not the only case in which that sagacious philosopher arrived as it were by inspiration at the very conclusions which have been afterwards obtained by the slow process of mathematical investigation.

It has been ascertained by repeated experiment, that the mean velocity of sound through air is about 1130 feet in a second, or 180 feet more than it ought to be. This is an excess which amounts to more than $\frac{1}{7}$ of the whole. Various attempts have been made to assign a reason for this anomaly. Sir Isaac Newton himself accounted for the difference by supposing the particles of air to have a specific gravity greater than that of water, and to be absolutely incompressible. But this hypothesis was never generally adopted. The specific gravity of the particles of air assigned was perfectly arbitrary, and contrived merely to make the phænomena agree with the calculation. Besides it is more than doubtful that the elasticity of air is owing to the nature and density of its particles, and not rather to the heat with which these particles are combined. Besides, if the particles of air occupy the ninth part of the distance between each, as is supposed by Newton, the intensity of light would be much more enfeebled than it is during its passage through the atmosphere.

Newton has ascribed part of the difference between the theoretical and real motion of sound to another cause; namely, the vapours suspended in the atmosphere, which he supposes to amount to a tenth part, and to add to the apparent weight without partaking in the motions. But it has been ascertained by the experiments of the Academy of Sciences, that even the thickest fog produces no diminution in the velocity of sound.

Lambert, in a dissertation on this subject, published in the Memoirs of the Berlin Academy for 1768, proposes another hypothesis. According to him the atmosphere is charged in all cases with a quantity of water and other bodies 800 or 900 times denser than air; but on account of their extreme minuteness lodging among its particles, and unable to precipitate to the earth. These particles being destitute of elasticity, rather check the undulations of the air. They must of course be abstracted in calculating the density of the air. This hypothesis is contradicted by the late discoveries in chemistry, which have demonstrated that water does not exist in air in the state of water; but in that of an elastic fluid, even lighter than air. Lambert demonstrated, that in order to make the calculated velocity of sound in air agree with the observed velocity, the foreign substances constantly present in the atmosphere must amount to $\frac{1}{7}$ of the whole. But this hypothesis cannot be admitted for a moment, as it is inconsistent with all the known facts relative to the constitution of the atmosphere.

Dr. Young of the Royal Institution proposed a new hypothesis in the syllabus of his lectures published in 1802. According to him, it is not improbable that the particles of air are surrounded by a more highly elastic medium which assists in transmitting the impulse, but which is either displaced or rendered less elastic when the air is strongly compressed (Syllabus, p. 88). This hypothesis reverses the suppositions made by former philosophers. Their uniform object had been to shew that the real elasticity of air is less than the apparent; while Dr. Young shows how the real elasticity may be greater than the apparent. There is no doubt that the supposition would reconcile the phænomena with calculation; but it is one of those conjectures which being totally unsupported by proof is not properly capable of examination.

Another idea struck the celebrated mathematician, Delaplace. It is obvious that when elastic bodies are thrown into undulations, they are at the same time condensed. It is known also, that heat is evolved in all cases when air is condensed. Now heat increases the elasticity of air. It was suggested by Delaplace that this increase of elasticity in consequence of the evolutions of heat might be sufficient to account for the excess of the observed velocity of sound above the calculated velocity.

The idea was certainly highly ingenious, and deserved to be put to the test of calculation and experiment. Accordingly he engaged M. Biot to undertake the task, and to communicate the result of his investigations to the National Institute. This has accordingly been done, and Biot's dissertation on the subject has appeared in the 55th volume of the Journal de Physique. The result of M. Biot's calculation is, that in order to reconcile the calculated and observed velocity of sound in air, we must suppose that when a quantity of air is condensed into half its bulk, its temperature is raised from 32° to 187°, and that an equally great diminution of temperature takes place when air is expanded into twice its bulk.

This change in temperature appears altogether extravagant at first sight, if we compare it with the experiments that have been made on the subject.

Even the most delicate thermometer only rises or falls a very few degrees, when air is condensed or rarefied around it. But if we consider that the heat or cold occasioned by these sudden changes in the bulk of air continues only for a very short time, and that even the most delicate thermometer is exceedingly great if we compare it with the very small quantity of matter whose temperature it is intended to measure, we must be sensible that no estimation can be formed of the quantity of change of temperature from the height to which the thermometer rises or falls.

The very ingenious Mr. Dalton of Manchester has, in an highly interesting paper on this very subject, which we shall subjoin to these remarks, pointed out a new method of estimating the change in temperature which takes place when air is condensed or rarefied. From the rapidity with which the thermometer rises or falls, he concluded at once, that the change of temperature was much greater than had been hitherto supposed. He found that air condensed to one half has its temperature raised 50°.

We cannot better conclude these remarks than in the words of Dr. Young, (Journal of the Royal Institution, i. 216). "Supposing that for each degree that the thermometer rises, the air must be condensed in some certain proportion, we may take that of 99 to 100 as near the truth; and then in order to produce an elevation of 50°, we shall require, as will appear by involution, a condensation to $\frac{1}{2}$ only of the original bulk, instead of half; for we may allow that a little heat might have been lost even in Mr. Dalton's experiment. Now a degree of heat increases the elasticity of the air $\frac{1}{100}$, very nearly, which is to be added to the $\frac{1}{100}$, produced immediately by the condensation. The moving force is therefore increased one fifth; and the effect is precisely the same as if the elasticity of the air were increased one fifth from any other cause. Consequently, since the velocity varies in the subduplicate ratio of the force (Syllabus, 294), we must add one tenth to the result of the calculation, and increase it from 950 feet in a second to 1045, at a mean temperature.

"But this correction is only half enough for our purpose; for the mean velocity from observation is 1130 feet. It remains therefore to be considered, whether we choose to adopt, in addition to Mr. Laplace's suggestion, any of those that had before been made, or whether we may suppose that the production of heat could have been more than twice as great as Mr. Dalton's experiments indicated. At any rate, Mr. Laplace appears to deserve the highest credit, for having led us one step forward in the theory of sound, although there is still room for additional investigation and experiment; and the probability of the opinion which I have already stated, does not appear to be lessened by this collateral correction."

We have not the smallest doubt that the heat evolved is considerably greater than that calculated by Mr. Dalton. We shall take a subsequent opportunity of communicating to the public the facts upon which our opinion is founded. It is proper in the first place to insert the experiments of Dalton, which we therefore subjoin.

2. *Experiments and Observations on the Heat and Cold produced by the mechanical Condensation and Rarefaction of Air.* By Mr. John Dalton.

If a thermometer be inclosed in a receiver and the air suddenly condensed, the thermometer rises a few degrees above the temperature of the atmosphere; and if the air be exhausted from a receiver inclosing a thermometer, the mercury sinks a few degrees immediately; but in both cases after some time it resumes its former station. These facts are well known to philosophers of the present age, but they do not all agree in the explanation of them. Thinking the subject worthy of elucidation, I was induced to institute a series of experiments for the purpose, which I apprehend have led to a clear demonstration of the cause of the phænomena, and moreover make the facts themselves appear in a somewhat different point of view from what they are seen in at the first moment.

One circumstance is very remarkable, that whether the mercury rises or falls in these instances, it is done *very rapidly*: whereas in the open air, if a thermometer be only two or three degrees above or below the temperature, it moves very slowly. This seems to have suggested to every one the idea that the elasticity of the glass bulb of the thermometer has a principal share in producing the effect, by causing the bulb to yield a little to the pressure of the air. It has however been found upon trial that the same effects take place whether the thermometer is sealed or not. My experiments accord with this, having made a thermometer and left it unsealed for the express purpose; in all the experiments with condensed and rarefied air, there was no sensible difference observed to arise from the inequality of pressure on the external and internal surfaces of the bulbs, the sealed and open thermometers varying the same in kind and also in degree, except from circumstances to be noticed hereafter.

It being certain then that a real change of temperature takes place, it remained to determine the quantity and manner of that change. Having chosen a small and consequently sensible thermometer, with a scale of degrees sufficiently large to admit of distinguishing one tenth of a degree, I proceeded to ascertain several facts experimentally.

Experiment 1.—Took a receiver, the capacity of which was about 120 cubic inches, and suspended the thermometer with its clear bulb in the central part of it; then letting the whole acquire the temperature of the room, which was without a fire, I exhausted the air and afterwards restored it, marking the effects upon the thermometer. The medium of several trials nearly agreeing with each other was as under:—

The Thermometer in the air of the room stood at ..... 50°.8
——————— sunk upon exhaustion to ..... 34 .7
——————— rose when the air was restored to 38 .9

The *suddenness* of the fall and rise puzzled me most: after reflecting upon it for some time, I conjectured that the real change of temperature of the air or medium was much greater than the thermometer indicated, but that the inequality existed only for a few seconds of time, because the receiver, &c. immediately impart heat to or abstract it from so small a

quantity of air as 100 cubic inches, which are only equal to 40 grains in weight. The phænomena of the thermometer seemed very well to accord with the supposition of *great heat or cold* acting upon it for a few seconds only.

Experiment 2.—Pursuing this idea I imagined that if two thermometers whose bulbs were very unequal in magnitude were inclosed together, the smaller bulb ought to give the greater variation: accordingly I inclosed two, the diameters of their bulbs being .35 and .65 of an inch respectively; and having exhausted the air and restored it again repeatedly in succession, and found a mean of the variations, that of the small bulb was 2°. 8, and that of the large 2°. 2.

Experiment 3.—Repeated the exhaustion with the small thermometer inclosed in three different circumstances successively; 1st, with the bulb in the centre of the receiver; 2d, with the bulb resting on the wet leather of the plate; and 3d, with the bulb resting against the side of the receiver.

1st Case—reduced by exhaustion	2°.45
2d Case—	2 .15
3d Case—	1 .2
1st Case—raised by restoring the air	4 .05
2d Case—	2 .25
3d Case—	2 .8

Experiment 4.—Inclosed a wine glass with about a cubic inch of water in it, containing the bulb of a thermometer in a receiver; and, exhausting the air, the thermometer sunk half a degree suddenly, and then continued stationary; upon restoring the air it suddenly rose half a degree.

All these experiments confirmed my conjecture of a much greater degree of heat and cold being produced in these cases than the thermometer points out, but that its continuance is so short as not to effect a material change in the temperature of the mercury. The following experiments were made to ascertain what may be the *real* degree of heat and cold generated in those operations.

Experiment 5.—The same receiver and small thermometer as above being used, I found the exhaustion was effected by working the pump *one minute*. The thermometer sunk nearly 2° in the first half minute, and the remainder, a few tenths of a degree, in the latter half minute. The operation being stopped, and things remaining in the same state, it required some minutes of time before the thermometer recovered *one* degree of the heat lost. Upon opening the cock, the receiver filled with air in five seconds, and the greatest velocity of the rising mercury was about the end of that time. The rising continued for 30 or 40 seconds from its commencement, but $\frac{3}{4}$ of the effect were produced in the first 10 seconds. The greatest velocity of the rising mercury is 1° in $3\frac{1}{2}$ seconds. After the thermometer had attained its utmost height, it began to fall again at the rate of $\frac{1}{10}$ of a degree in a minute.

Experiment 6.—Took the same thermometer and heated it to 50° above the temperature of the air, then let it be cooled by the medium of air, and it began to fall at the rate of 1° in $3\frac{1}{2}$ seconds.

The two last experiments seem to prove that when air is let in to the receiver in the ordinary way, *an increase of temperature of* 50° *is produced in the medium within the receiver for* $3\frac{1}{2}$ *seconds*. This high temperature is reduced *in a few seconds* by the receiver and surrounding bodies to their own temperature.

Experiment 7. *On condensed Air.*—Took a large spherical glass receiver, the capacity of which was something more than twice that of the former (above one gallon), and suspended a thermometer in the centre of it, of a larger bulb than that before used; the receiver had a brass cap and stop-cock adapted to it:—Then doubled the density of the air within it by a condenser. The thermometer rose 2° or more. Let out the air suddenly and the thermometer immediately sunk each time from 3° to 5°. 5; at the same time an exceedingly dense mist was produced in the receiver, which soon subsided.

Suspecting that *aqueous vapour*, which always exists in the atmosphere, and is liable to assume the liquid or aerial form according to circumstances, might be the principal agent in the production of heat and cold by condensation and rarefaction, I thought that an increase of it might produce a greater effect, and that cold air, which contains less vapour, might have a less effect. The reverse however was the fact, as appears by the following.

Experiments 8 *and* 9.—In a cold morning last winter when the air was clear and the thermometer without stood at 20°, I took the receiver and condenser into the open air, and let them stand for 15 minutes to acquire its temperature; then repeatedly condensed the air to a double density, and suddenly liberated it again. On a medium of 5 trials the mercury fell 5°.3 on opening the cock.—The vapour precipitated was whiter than usual and not nearly so dense.

Again, took the receiver and condenser into a dyer's stove where the temperature was about 100°, and the air abounded with vapour in a transparent state: after some time, condensed the air and liberated it as before, when on a medium of 5 trials the mercury sunk only 3°, and a very copious mist was precipitated, so dense that one could but just distinguish the degree of the thermometer through it.

These experiments shew that the greater the quantity of vapour condensed the less is the change of temperature; and that consequently, if air was entirely free from vapour, the change of temperature would be a *maximum*. Indeed this is clearly consistent with the known law, that when vapour is condensed, heat is given out. Any process to cool the air must be retarded by the condensation of part of the vapour it contains. Suppose for instance that a portion of the atmosphere contained $\frac{1}{10}$ of its weight of aqueous vapour, and that $\frac{1}{3}$ of this vapour were condensed by 50° of cold; that is, $\frac{1}{30}$ of the whole elastic mass was converted into water; then the heat given out would be sufficient to raise the temperature of the remaining mass of air and vapour 1° or 2°, which sufficiently accounts for the small difference observed in the results upon warm vapoury air and cool dry air. Hence vapour, far from producing the change of temperature in question, tends to diminish the effect.

If any doubt remained with me respecting the *real*

change of temperature that takes place in the operations related above, it was completely removed by the results of the two following experiments.

Experiment 10.—Inclosed a small graduated glass tube of $\frac{1}{10}$ of an inch internal diameter, and 10 inches long, with a short column of mercury in it, in the large receiver; the tube was sealed at one end and open at the other, so that a portion of air of given capacity was confined by the mercurial column, which was near the open end of the tube, and subject to rise or fall by any variation of elasticity of the air on either side, being a proper manometer: then doubled the density of the air in the receiver, and opening the stop-cock, the mercurial column soon ran up to its former station, but instantly turning the cock again, the mercurial column returned or fell down gradually for 5 or 10 seconds, to the amount of nearly $\frac{1}{10}$ of the whole aerial column, and then became stationary. Again opening the cock, a quantity of air rushed out, and the mercury resumed its original station. These effects were always the same, on a repetition of the experiment.

Experiment 11.—Let the mercurial column of the manometer down by a wire to $\frac{1}{4}$ of the length of the tube from the sealed end; then exhausted $\frac{1}{4}$ of the air from the receiver, which was seen by the mercury rising to the top of the tube; and upon opening the cock the mercury fell to its former station, but then suddenly turning the cock, the mercury gradually rose for the space of 5 or 10 seconds to *more* than $\frac{1}{10}$ of its original height above the stationary point, and remained there till the cock was opened; after which it resumed its proper station.

The phænomena in the two last experiments can be explained only on the following principle:—The air in the receiver and in the manometer is subject to a like degree of rarefaction and condensation in those experiments, or very nearly so. When the equilibrium of heat in the air is disturbed by the operations of condensation and rarefaction, it is restored in the manometer *instantly* by reason of the contiguity of the glass to the air; but in the large receiver it requires a sensible time of 10 seconds or more to restore the equilibrium throughout the whole internal capacity. It is this restoration that increases or diminishes the elasticity of the air confined in the receiver, and thereby causes the retrogradation of the mercurial column. Now I have found by former experiments that a change of 50° in temperature effects a change of $\frac{1}{10}$ nearly, in the capacity or bulk of air. It follows therefore that in the case of restoring the equilibrium in condensed air, about 50° of cold is produced; and in letting in air to an exhausted receiver something more than 50° of heat is produced. The small difference seems to arise from this, that the condensation of vapour in the former case *diminishes* the effect, and in the latter, if any there be, *increases* the effect, that would arise from operating upon purely dry air.

The experiments and observations hitherto related go principally to ascertain facts without any reference to the theory of them: This however may be given in a few words, and is the same that is ascribed to Mr. Lambert by Messrs. Saussure and Pictet and by them adopted. He conceives that a vacuum has its proper capacity for heat, the same as air, or any other substance; and that the capacity of a vacuum for heat is *less* than that of an equal volume of atmospherical air; also that the *denser* air is, the *less* is its capacity for heat: upon these principles the phænomena are easily referable to that class of chemical facts where heat and cold are generated by the mixture of two different bodies.—If this theory be right, and I think there is little doubt of it, we may hence be led into a train of experiments, by which the absolute capacity of a vacuum for heat may be determined; and likewise the capacities of the different gases for heat, by a method wholly new:—but this must be left to future investigation.

NOTICES.

The lectures on Agricultural Chemistry which we noticed in our last, as having been delivered by Mr. Davy to the Board of Agriculture, are, by the permission of the Board, repeated by the same gentleman in the theatre of the Royal Institution; the first was given on Tuesday, May 31st, and the delivery of the last will take place today. We understand likewise, that the gentlemen of the Board have been so satisfied with the abilities and industry of the young Lecturer that they have conferred on him the title of *Professor in Ordinary*, with a liberal salary.

The 15th Number of the Journals of the Royal Institution, just published, contain 17 articles, of which, two were communicated by the Right Hon. Sir J. Banks, and five written by the Professors, Dr. Young and Mr. Davy.

A foreign reviewer of Dr. Millar's Treatise on Sea-sickness, makes the observation, that by a variety of experiments it has been ascertained, that strong coffee without milk taken with some biscuit three times a day, instead of all other food and drink, is at once the best nourishment and treatment for persons affected by sea-sickness.

Lalande presented on the 22d of May to the First Consul, his *Bibliotheca Astronomica*, a volume of 924 pages in 4to, containing a catalogue of all the authors and works that treat of Astronomy. The work is enriched with observations by the author on the most remarkable books and writers whom he has occasion to notice, with anecdotes, and an abridgement of the History of Astronomy, since 1781, where it was left by Bailly.

In the last Sitting of the Galvanic Society at Paris, Cossigny read a report, drawn up by him and Abriol, and Abboville, both members of the Conservative Senate, on a preparation used by some Indian nations for the purpose of preserving the pliancy of the limbs after death. *Nauche*, president of the Society, made some observations on the utility of a combination of blisters with galvanism in the cure of deafness. *Aldini* read an account of his known experiments, made in this country, on the body of a criminal executed with the halter, and of another experiment, he made on the sea-shore, the result of which is, that in galvanic, as well as electrical operations, water may [illegible] a conductor at a considerable distance.

Mr. Gallet, late apothecary to the French army of the North, has accidentally discovered a remedy against the pernicious effects of verdigrise disengaged from copper vessels, badly tinned, during the preparation of victuals. Gallet having been poisoned in this manner, and not being able to obtain immediately oil or milk, he drank sugar-water, whereby his pains were so considerably allayed, that he took a quantity of sugar undissolved. The vomiting ceased, and having been purged 24 hours, he fell asleep, and found himself perfectly recovered when he awoke.

In the sitting of the National Institute of France, of the 4th of last month, the astronomical prize for last year was adjudged to Dr. Olbers of Bremen, the committee having given it as their opinion, that the discovery of a planet by that celebrated astronomer, is the most memorable event in the department of astronomy within the last twelve months.

Dr. Valli, professor of chemistry at Mantua, has communicated to *Dr. Moscati* at Milan the important discovery, that infusions of bark, tincture of wormwood, nay broth, may be oxydated in such a manner, that the latter, for instance, withstands putrefaction for six months and upwards. Several experiments have been made with meat, which was previously exposed to the sun and nearly putrified. After the process of oxydation had been performed, the smell became less offensive the very next day, and on the tenth it was dissolved into fibres without imparting to the water any unpleasant taste. In consequence of these experiments, *Dr. Solfanini* at Milan has successfully employed oxydated *Tinctura aquosa di Gallo*, in the cure of inveterate ulcers.

A variety of galvanic experiments have of late been made in Italy and other countries on beheaded criminals, which seem to confirm the opinion of Dr. Soemmering and other literati, that beheading is a cruel mode of execution. The most recent experiment of that kind was made at Breslaw in February last by some of the ablest physicians of that city. After the head was severed from the body one of them cried into the ear—'*Fr.* (the name of the executed offender,) do you know me?' The eyes opened, and turned towards the side whence the sound proceeded. Being turned to the sun, the eyelids were strongly convulsed. A finger was introduced into the mouth and bit. A sheep trocar being thrust into the hinder part of the head, all the muscles of the face were immediately distorted into the expression of the most excruciating pain. These experiments made within the first three minutes after the beheading, prove, that sensation at least outlasts the execution.

Mr. Collin, optical instrument-maker to the Academy of Sciences at Stockholm, has been presented with 200 rix-dollars, (about £40.) by his Swedish Majesty, for the invention of an instrument, by which objects may be discerned at the bottom of the sea.

In the course of last year a considerable number of Mammoths' bones were found on the estate of Count Muschin Puschkin in the department of Jaroslaw, of which a brief notice is found in Koramsin's Russian Journal for November last. The Count having presented with those bones the Academy of Sciences at Petersburgh, Mr. Alenin has prepared for the press a memoir, containing the result of a careful comparison thereof with the skeletons of elephants, preserved in the Imperial museum; this memoir is to appear at the same time in the French and Russian language.

Dr. Mutis, director of the botanical garden at Santa Fé, in South America, has prepared for the press a work which contains the result of his observations and experiments on Peruvian bark, made during a residence of upwards of forty years in that country; the botanical and pharmaceutical history of Cinchona, and an account of the preparation of bark-beer, bark-vinegar, and a tincture of bark of superior efficacy.

LITERATURE.

1. *Whether Utility be the Foundation of Virtue.*

That some actions are right and some wrong; that some are blameable and deserve punishment, and that other actions are laudable and deserve to be rewarded, are truths which have been admitted by all ages and nations since the beginning of the world. Is it not remarkable then that moralists are still disputing whether actions be right or wrong in themselves, or solely on account of their consequences; whether there be an original principle called Conscience or the Moral Faculty; or whether all our notions of right and wrong, of duty and obligation, be the mere creatures of education, experience, and habit? We cannot help expressing in strong terms our astonishment that at an age of the world so advanced and enlightened, when every species of knowledge has made such wonderful progress, when philosophers and divines of the highest talents and integrity have devoted their labours to the study of the human mind, a question so important to the order and happiness of mankind, should still remain undecided. While we attempt to throw some light upon this subject, we have not however the vanity to think that any statement of ours will alter the opinion of those who have been long accustomed to think differently. But impelled as we are by a strong sense of duty, and a sincere desire of promoting the virtue of our fellow-creatures, we cannot refrain from soliciting the attention of all our intelligent readers to the candid investigation of a subject which must be interesting to every wise and good man.

It has been for a long time a prevalent opinion among many of those who stand high as philosophers in the public esteem, that moral virtue is synonymous with utility; and that in performing good actions, the desire of promoting general utility is the only laudable and virtuous motive that ought to influence our conduct. Far be it from us to wish to censure, or to lessen in the smallest degree, so noble a principle as benevolence to mankind. We acknowledge it to be amiable, highly beneficial, that it stands second in the purest system of morality which the world ever saw; and we would rejoice to think that it glowed with genial ardour in every human breast. But we do not consider it as the highest principle in our nature, nor as the sole foundation of virtue. As comprehending a secondary class of virtues we revere it; but should it be permitted to usurp the place of conscience, the supreme principle, and to become the only rule of conduct, we shudder with horror at the dreadful consequences that must ensue. Nor are these consequences imaginary. They have been lately exhibited in the most striking colours; they have been drawn in characters of blood. In the unhappy country of France this theory has been reduced to experiment. It becomes us, who were spectators of the awful scene, to examine it with attention, that we may learn lessons of wisdom for the benefit of ourselves and of generations yet unborn.

When we take a view of the crimes that attended the French revolution, we are apt to ascribe them to the fury of unbridled passions. But we must remember that, depraved as human nature is, it does not delight in wickedness for its own sake. Crimes are only the means or instruments which men employ in order to accomplish some favourite ends. If the same ends could be obtained as easily without the commission of crimes, the most abandoned would forbear from perfidy, cruelty, and blood. We may, perhaps,

there may be safety in a multitude of counsellors, there is not always perspicuity in a multitude of words, and there is nothing that contributes to render the translation of an ancient writer at the same time so uninteresting, and so obscure, as to drag into the text any of those illustrations from the scholia and the notes, with which the editions of the original are loaded; of this many instances occur in this translation.

We will first produce specimens of good translation, by much the most pleasing part of our critical duty. The departure of Argo from the Grecian shore is thus beautifully described:

'The nervous rowers (like some youthful choir
'That dance in cadence round the mystic fire,
'While Orpheus thro' the vocal strings explores
'The soul of music,) ply th' harmonious oars.
'At every stroke in foam the brine arose,
'The hoarse wave murmurs as *the vessel goes.*
'As rising on their oars the vigorous throng
'Plow the dark waves the vessel shoots along;
'Their polish'd arms repel the dazzling beam,
'And o'er the waters dart a fiery gleam.
'Behind the ship, a hoary track succeeds,
'As pathways whiten thro' the verdant meads.'

The last couplet is a faithful portrait of the original,

Ατραπὸς ὡς χλοεροῖο διεδομένη πεδίοιο.

which likens what our seamen call the wake of the ship, where the foam of the wave is distinguished from the general green of the sea, to the track which is left by a recent passage through high grass, which appears white from the reverse of the leaf being rendered more conspicuous.

This image is entirely lost in the translation of Fawkes:

'So shines the path along some grassy plain
'*Worn* by the footsteps of the village swain.'

for there can be no resemblance between the evanescent track of a ship through the sea and a beaten foot path.

The following passage

——————— 'Ænea's strand
'Yields him a refuge from the cruel band.
'The vine-clad island bore that ancient name,
'From fisher tribes its modern title came;
'For when Sicinus the possession gain'd,
'Its owner's name the subject soil retain'd.

affords an instance of a useless and unwarrantable interpolation from the Scholia. The literal translation of the original is, 'Thence they came to an island 'formerly called Œnea [not Ænea] but afterwards 'named Sicinum, by the fishermen from Sicinus.' Surely there was no reason to insert in the text the Scholiast's derivation of Œnea from the Greek word Οινον, wine.

In the third book, when Medea goes to meet Jason by stealth, to deceive her female attendants, she tells them that her sisters had persuaded her to assist Jason, but that she would draw him apart in order to get his treasures, and then give him a poisonous drug.

Τῷ δ' οὔτε κακώτερον ἄλλο πόρωμεν Φαρμακον.

Faithfully rendered by Fawkes,

'For him a dose more fatal I prepare.'

This is totally misrepresented in Mr. Preston's translation; there Medea avows her intention to assist Jason, and ensure his affection by a love potion;

'In secret here the treasure he [Jason] divides
'And takes the *philtre* that my skill provides
'The strongest spell that magic can prepare.—

We think it not right to use *voyage* as a dissyllable, as it is constantly used all through this work, since it is always in common speech pronounced as a monosyllable, not even though supported by one authority from Milton; neither do we see why Phebus alone should be written without the diphthong, when it is allowed passim to Æson and Ætes.

We shall reserve our observations on the notes and dissertations for a future Number, adding only here, that from many parts of this work it appears Mr. Preston had the powers of making the whole much better than it is.

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3. *On the Greek Epigram.*

Mr. Editor,

In your last number, your Correspondent who signs himself P. asserts that 'the Greek epigrams are acknowledged by the best critics to be much inferior to 'those of Martial and other Latin poets.' Now, sir, I am at a loss to know who these superlatively good critics are, except Lord Chesterfield and those gentlemen who, like Polonius, "are for a jig or a tale of bawdry, or they sleep." In truth, a great number of the Greek epigrams are, like that quoted by your Correspondent, epitaphs: and the epigrams of Callimachus or Antipater can no more be brought into a comparison with Martial, than Grey's elegy can with Hudibras.

The beauty of the epigram attributed to Anacreon which P. has translated, seems to me in great measure lost in his and every other translation I have seen. I take this to be the literal sense: 'Timocritus was 'brave, *of which this is a monument*, i. e. a sign; for 'Mars does not spare the good *warrior* but the bad one.' Which I would thus paraphrase:—

That Wolfe was brave, alas! this tomb declares,
For war the coward, not the valiant spares.

I must consider the remark of your Correspondent that the assertion in the last line is not true, as complete hypercriticism. The officer of grenadiers had a different notion of the matter, who when Lewis the XIVth told him he was too young to ask for a company, replied, 'people do not live long in your Majesty's grenadiers.' E.

Mr. Editor,

In the *Literary Journal*, N° 21, your correspondent P. observes that all the Greek epigrams which have reached us are acknowledged by the best critics to be much inferior to those of Martial and other Latin poets. According to the meaning we attach to the word *epigram*, the observation is certainly just, but it should be remembered that the term is Greek, and coming from επιγραφειν *to inscribe* or *write upon*, originally signified such *Inscriptions* as those placed by the ancients on their tombs, statues, temples, and triumphal arches; therefore if there be any where a deviation from the design of this species of composition according to its name, it does not rest with the Greeks, whose epigrams for by far the most part

agree with its primitive signification, but with the moderns who have affixed a *sine qua non* to it, which never entered into the speculation of its inventors.

In a Greek epigram we are not to look for that *point* which is required in one written at the present period. —They did not aim at it, and are no more to blame for composing epigrams without this qualification, than the mechanic would be for not producing a needle, when it was all his study to make a bodkin. The sense of *Epigramme à la Grecque* is proverbially known, and may be well interpreted by Dr. Johnson's definition of a sonnet, "*an epigram without point.*"

With respect to the Greek epigram cited and translated by your Correspondent :—

This is Timocritus' the warrior's grave,
Mars lets the coward 'scape, but takes the brave—

which he seems to think unlikely to give great encouragement to young heroes, I have merely to remark, that on the score of suppressing martial ardour, we have little to complain of in the classical authors of Greece, since their poets especially, almost invariably took the other way. It is true that Demosthenes has said :

Ανηρ ὁ φευγων παλιν μαχησεται

which is thus expressed in our old distich ;

For he that fights and runs away,
May live to fight another day.

But as an antidote to this, as well as to that quoted by P. I shall, from a number, give you, for the sake of brevity, one short sentence from Xenophon de Cyri Instit. l. iii. p. 175, Hutchin : and conclude : οἱ δὲ φευγοντες ἀποθνησκουσι μαλλον των μενοντων—*Those who cowardly retreat are more likely to be slain than those who boldly keep their ground.* O. N.

May 28,
Brick-Court, Middle Temple.

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5. *Ode for His Majesty's Birth-Day.*

JUNE 4, 1803.

By Henry James Pye, Esq. Poet-Laureat.

I.

Britain, alas! has woo'd in vain,
Reluctant Peace, thy placid charms;
Compell'd, she treads once more th' ensanguin'd plain,
Where Fame, where Freedom, call aloud for arms.
Yet be awhile the battle's sound
In notes of festive triumph drown'd:
Whether the fiends of Discord fly
Portentous through the fiery sky,
Or, bound in Fate's coercive chain,
Howl 'mid th' infernal seats in vain,
On this auspicious day the Muse,
Jocund, with grateful voice, her wonted theme pursues.

II.

Amid the boast of tyrant pride,
The pomp of state, the arm'd array,
Can all the shouts of slavery hide
That slaves unwilling homage pay?
No force can shield Ambition's head
From noon-tide care, from midnight dread,
When the still monitor within
Searches th' abode of blood and sin:
While he who rules with virtuous sway,
Whom Freemen glory to obey,
Sees every breast the bulwark of a throne,
His people's surest guard, its sacred rights their own.

III.

Then let the Muse, with duteous hand,
Strike the bold lyre's responsive strings,
While every tongue through Albion's land
Joins in the hymn of praise she sings;
And Labour, from the furrow'd plain,
And Commerce, from the billowy main,
With voice symphonious bid arise
That purest incense to the skies,
Above the proudest wreath of Fame,
Which ever grac'd the victor's name,
A Nation's votive breath, by truth consign'd
To bless a patriot King—the friend of human kind!

NOTICES.

A new edition of Mr. Beloe's *Herodotus*, enriched with many additional Notes, will soon make its appearance.

The importation by land of foreign literary productions has been lately thrown open in Russia, yet on condition that they are to be sent to the custom-house at Petersburgh or Riga, there to be examined, before they are sold or otherwise brought into circulation.

MANNERS.

On Duelling.

Mr. Editor,

THE worth of every man, considered as a member of society, must evidently be estimated by the general tendency of his moral qualities and actions to increase the sum of human happiness. All moral qualities and actions in which such tendency is discoverable are denominated virtues; and are either of a social nature, such as charity, generosity, sympathy, fidelity, clemency, truth, and justice; or of a private nature, such as courage, temperance, chastity, industry and frugality. From the exercise of these virtues, both general and particular benefits, for the most part, ensue. The private virtues are immediately profitable to the individual; and remotely or collaterally so to society: the social virtues, on the contrary, are in the first instance beneficial to others; and eventually so to the individual by whom they are exercised. The good of the individual, however, being confessedly subordinate to the good of society, it must be admitted that the moral worth of a man is always much more enhanced by even a partial exercise of the social virtues, than by a general and uniform exercise of those which are private.

Of all the private virtues, courage is, beyond contradiction, the most attractive of our admiration; and may be rendered the most attractive of our applause. When we see that noble quality employed in protecting the weak, succouring the helpless, executing the laws, opposing tyranny, maintaining national independence or extending national renown, we find ourselves under an absolute incapacity of suppressing our admiration, and under a moral obligation to bestow our applause. It is, however, to be observed

that in all these cases courage is subservient to some benevolent affection or social virtue. If unhappily under the influence of any of the malevolent passions, it not merely loses its value, but, being pregnant with robberies, murders and every species of outrage, it obviously becomes a curse of the first magnitude in social life. Like intellectual vigour, it proves a source of infinite good when well directed; and of infinite mischief when otherwise.

In order to appreciate courage with precision, we must likewise observe that it is both an accidental and a variable quality. With some it is the effect of constitution; with others its originates in fortuitous associations of ideas; and with others it is excited by particular passions. One man will display a contempt of death under all circumstances so long as his constitution remains unimpaired or unaltered: a second will appear in the light of a hero on some occasions; and in that of a poltroon on others: and a third, during the impulse of some strong passion, will exhibit a degree of courage which he was never before known to possess. These observations have been amply confirmed by facts. Many a man who never lost his courage in the field of battle, has lost it on the bed of sickness: many a man has displayed courageous impetuosity in one action, and suspicious caution in another: many a seaman who has braved the fury of contending elements and jested in the midst of carnage, has betrayed a dastardly disinclination to sleep in an uninhabited house; or even to ride a sprightly horse: many a soldier whose courage could not be subdued by man has found it to fail in a storm at sea; and has even stood appalled at a rat: many a man who has valiantly fought to recommend himself to his mistress has become almost a coward in her company: many a man under circumstances similar to those of the soldier of Lucullus,* has experienced similar alternations of bravery and pusillanimity: and love, revenge, jealousy, and ambition have often infused intrepidity into cowards.

We must likewise farther observe that courage is, generally speaking, an unattainable quality. The social virtues may be acquired by reflection and self-discipline, the acquisition of courage is often beyond the reach of human powers. A sufficiency of courage for a particular emergency may, it is true, be attained both by physical and moral means; but such forced courage is transient, vanishing with the emergency and means by which it was produced.

Since then courage is valuable in society so far only as it is governed by some social virtue, since it is moreover an accidental, variable, and unattainable quality; I think we may venture to say, that however the want of it may be deeply deplored, the exclusion of a man from society on that account only is as flagrant an outrage on the principles of reason, prudence, and justice, as such an exclusion would be on account of a deficiency of intellectual vigor, personal beauty or any other natural endowment. This remark I am ready to grant does not admit of universal application. A want of courage in those who belong to the profession of arms most certainly justifies not merely their exclusion, but their ignominious expulsion from that honourable profession, for a variety of reasons too obvious to mention; and the ignominious expulsion of any individual from a particular society affords, in most cases, sufficient arguments against his reception in society at large.

But though I were to admit, what no man of reflection will, that fear amounts to a forfeiture of a man's place in society, I certainly will not allow that any inference can thence be drawn in favour of the barbarous and absurd practice of duelling. A man of consummate courage may refuse to fight a duel on a variety of admissible, a variety of laudable considerations. He may be strongly impressed with a conviction that to risk his own life, or precipitate a man into eternity for a trivial offence or intemperate expression, is an unpardonable contempt of the manifest will of the Deity. He may perceive that the laws of the land are fully adequate to the punishment of all serious wrongs or injuries which a man may sustain in his person, property or reputation; and that the welfare of the community requires that the powerful and impartial hand of the magistrate should be employed in inflicting such punishments, not the powerless and passion-guided hand of the party aggrieved. He may be aware that his life is necessary to the protection, support, or general welfare of others. He may perceive the glaring absurdity of endeavouring to rescue his reputation from the foul calumnies that may have been heaped upon it or to expose the calumniator to contempt, by the death or mutilation of either party. He may be persuaded that a duel cannot transmute the character of a man: that it can make him neither more nor less a liar or a scoundrel. He may very possibly entertain an opinion that shooting a man through the head is rather an unsatisfactory mode of *giving satisfaction*. Or he may be conscious of being infinitely inferior to the person who insults him in the management of pistols or swords; and may very reasonably deem it not true courage, but as downright ridiculous rashness to engage him with either, as it would be in a man unacquainted with the pugilistick art to challenge the magnanimous, the renowned, the invincible Mr. Belcher to box.—Neither can a readiness to fight a duel be considered as an unequivocal proof of heroism. A man may by practising with pistols or swords (which, by the way, seems to indicate a timid or a sanguinary disposition) arrive at such a degree of skill in these weapons, as to render it, nine times out of ten, perfectly *safe* for him to fight a duel. The battle to be sure is not always to the strong; but it generally is. Another may have given the world reason to suspect his courage; and anxious to recover his reputation, but regardless of the nature of the means he takes to do so, may by turning his thoughts constantly to the same object, and seizing his fighting hour (for we all have our fighting hours as well as our hours of good spirits) muster up sufficient courage to fight a duel. This I believe is in every man's power to do; but is positively no proof of genuine courage. And a third may, by disappointments, losses, vexations and slights, be rendered so weary of life, as readily to grasp at every opportunity of throwing it away. To fight a duel under such circumstances is clearly a proof of despair; which is

* Horace, Ep. ii. b. 2.

allowed to be at least as far removed from true courage, as caution is from cowardice.

I have now arrived at the proper place for discussing the expediency or utility of the practice of duelling: a prevailing opinion whereof has hitherto served to countenance it in defiance of both argument and ridicule. But before I proceed to do so, I must state a case, and a very possible one too, which I think will tend to place the barbarity of this practice in a strong light. It is this: a man of irreproachable morals, of an amiable disposition, and sedulous in the discharge of the relative duties of social life; a useful magistrate perhaps, a distinguished personage in the literary world, or a gallant officer whose services have entitled him to the grateful applause of his countrymen,—is wantonly insulted, contumeliously treated or trespassed on by some petulant, unprincipled, ill-bred duellist: he remonstrates in terms expressive of becoming indignation; and is in consequence challenged. If convinced of his being infinitely inferior to his antagonist in the management of pistols or swords, either through disuse or bodily infirmity, he prudently declines the proposed combat; according to the *laws of honour*, he loses his place in society. If rashly giving way to his native courage he accepts the challenge, the odds are 50 to 1 that he loses his life. In either case, society sustains a most serious loss; and an individual undergoes one or other of the heaviest punishments that can be inflicted, exclusion from society or death: not for any crime committed by him, but for the crime of a worthless wretch unfit for society.

The bare possibility of such a case, is, in my opinion, sufficient to countervail any argument that can be grounded on the expediency of countenancing the practice against which I am pleading. But in truth no substantial argument can be grounded thereon. It is not, in reality, as many suppose, a necessary evil, an indispensable absurdity, a barbarous practice requisite to secure mutual forbearance, restrain impertinence and prevent brutality. If the grounds of the opinion which prevails on this matter be generally examined, I am sure such opinion will not be generally entertained. The expediency or utility of any custom may be justly estimated and ascertained by carefully comparing the beneficial and detrimental effects of its continuance with those likely to result from its suppression. Whoever will resort to this mode of measuring the expediency of countenancing the practice of duelling will assuredly depart from the received opinion. But it is perfectly unnecessary to engage in any troublesome research or chain of speculative reasoning; the utter inexpediency of countenancing this practice must be abundantly evident to those who will pay common attention to the facts which daily fall under their own observations. Do we not find civility, decorum, mutual forbearance and general inoffensive behaviour at least as prevalent in the company of clergymen, quakers, and ladies, as in that of the junior gentlemen of the sword? and yet clergymen are prohibited from fighting duels by their profession, quakers by their religion, and ladies by the customs of their sex. Do we not witness captiousness, petulance, rudeness, and overbearing behaviour as often in societies where sending and accepting challenges for every trivial offence, is considered as one of the most sacred of the laws of honour, as in societies where an opposite opinion prevails? Do we not frequently see social mirth restrained or interrupted by the presence of one of those who are ready to *call others to account* for every inadvertent expression or inconsiderate remark, although evidently the effect, not of malice or spleen, but of exuberant, innocent festivity? Do we not often see ill-bred, shallow, insignificant, despicable duellists, paltry ruffians, who rely for protection against merited censure, derision and contempt, not on any moral or intellectual quality, but solely on their skill in the management of pistols and swords, assuming magisterial tones, and requiring deference to their absurd opinions, acquiescence in their caprices, and submission to their unfair or defective decisions? And to what are we to ascribe these insufferable inconveniences? Manifestly to the countenance incautiously given to the practice of duelling. Few men, however, possessed of courage, if inexpert in the management of swords and pistols, will so far volunteer in behalf of society, as to curb and silence these usurpers, when the inevitable consequence of their doing so must be their engaging in unequal contests with *professors*.

After all, then, it seems that as much may be urged against the expediency of countenancing the practice of duelling, as against its barbarity and absurdity. And such being the case, I trust there will be found in this country men of sufficient fortitude and virtue to decline, discountenance, and eventually bring this practice into utter and general disrepute; and thereby preserve the lives of many valuable members of society and many valiant defenders of their country.

Meanwhile, as the establishment of equality between combatants, in point of danger, is likely to have the effect in many instances of preventing provocation, besides being agreeable to the principles of true courage and honour, I beg leave to recommend the substitution of short bell-muzzle blunderbusses instead of pistols or swords. These being loaded with six small pistol balls, and the combatants placed at the usual distance of twelve paces, skill will be of no avail, as the balls will be scattered in all directions; one or both of the parties will certainly be wounded; one or both probably killed.

By deciding *affairs of honour* thus, the scientific gladiator, or the sharpshooter who can split a bamboo, snuff a candle, knock the head off a pullet, or perforate the ace of hearts, will obviously enjoy no unfair advantage over his inexperienced antagonist.

I am, Sir, your obedient servant,

J***h O S**n.

Bally-saggart, May 12, 1803.

We have admitted our Correspondent's sensible letter on this subject, as very recent events have drawn the attention of the public to it, although we are convinced that in this, as well as in battles of greater magnitude, the evils of the sword will not be corrected by the strokes of the pen. We expect no public discountenance to the practice of duelling, until there be a change in public opinion, until the parties immediately affected have learned to think seriously and to argue

soundly. Many men have fought duels who could have once preached or written against them. But their theoretic determinations are like the assertion of Benedict, "When I said I would die a bachelor, I did not think I should live to be married." We are all ready enough to say what we ought to do, and what we would do, in certain given circumstances, but when these circumstances actually occur, we find, or pretend to find, some wonderful and unexpected difference in the case which immediately makes us to act as the creatures of the moment. There is nothing so different from the execution of an escape, as the contrivance of it. We think to go out at one door, which we know is open, but we lose our time in attempting another which we know to be shut. It is thus, in general, that we provide against dangers, when they are at a distance, and thus we decry duelling when we have received no provocation. Nothing but a radical and permanent principle can cure this: and nothing expel this barbarism from society but a change of public opinion founded on such a principle. But we despair of this while barristers are permitted to prate of the laws of honour in a court of justice, and a jury, who have sworn on the *holy Evangelists*, will listen to them with complacency. R. S.

POLITICS.

AFTER so much has been said both in the public prints and in parliament, respecting the dissention between this country and France, and after observing how very little light has been thrown upon the subject, since the publication of the King's declaration, by all the discussion which it has undergone, we might dismiss it, as a subject concerning which our readers could not fail to be fully informed, and to the elucidation of which nothing more could be added. So great and serious an affair however is war in the history of a people, that as it engrosses the attention of government, and suspends its operations for the improvement of the laws, institutions, industry, or happiness of the country, so it engrosses the passions of the people, and scarcely leaves them curiosity concerning any other public concern. They desire to hear the war spoken of, the war alone, though they should hear nothing but the same observations repeated without end.

We have been peculiarly struck with this fact in the speeches of the orators in parliament upon the present momentous occasion. And however remarkable the unanimity which has distinguished their conclusions and resolutions, the perfect identity of their observations and reflections is, in our opinion, no less remarkable. If we take his Majesty's declaration as the standard, we may venture to pronounce that all the speeches in the late debates have been nothing more than copies, more or less perfect of that original. Some have drawn the leading features a little more, and others a little less strongly; yet still the resemblance is so complete, that professed copies would hardly have come nearer. If there is any exception to this rule it is the speech of Mr. Fox; but even in this case, if the provocations by France be the subject of the picture, his object was only to soften. Scarcely one of the injuries detailed in the King's declaration did he deny to be an injury. He only denied that they were sufficient causes of war.

The magnifiers of these injuries, on the other hand, have not advanced a single new circumstance as an additional ground of offence. They have only asserted that the circumstances mentioned in that manifesto were more grievous causes of offence than they are there represented. We cannot help remarking too, that for the proof of the extraordinary magnitude of these offences, we have only the assertion of these gentlemen. Their speeches consist of two parts. They first paint in the blackest and strongest colours they can, the several offences received from France, and then declare that each is a proper cause of war. But they have brought forward no general and luminous principles of policy to give us clearer ideas respecting the scale of offence, and teach us to know the precise degrees at which national interest requires challenge to be made with words, and at which words ought to cease, and actions to begin. But till they do this what possible title can they have to the name of enlightened statesmen, to whom we ought to trust more than to those who furnish us with a different opinion? How are we to know that the peculiar violence of their interpretation is not the effect of their peculiar temper, or of their peculiar interests, or of a peculiar and false system of political principles? When any man's opinion rests on strong and clear reasons, he can surely tell these reasons. Why have not the persons to whom we allude given us the reasons for their violent opinions? It is not the drawing of a black picture which makes an argument. For still this is only the picture of the person who draws; and his opinion is involved in the picture; to make the one therefore the foundation of the other is reasoning in a circle, and a mere begging of the question. The naked circumstances of the case still remain, on which every man may form his own opinion. But he ought to think of imposing his opinion upon others only by shewing clearly the links which connect his opinion with these circumstances, not by asserting it with boldness and pertinacity. So far have the persons to whom we allude been from attempting to connect their opinion with the circumstances of the case by the enlightened principles of general policy, that they have not attempted to find one parallel case in history, where similar offences have been received with the hot resentment which they advise, and where this conduct has been approved of by the enlightened contemplators of different ages and nations. We do confess, that with the high opinion which we entertained of the abilities and knowledge of several of the patrons of the violent system, we have been surprised to find their speeches on the present occasion so jejune, and their attacks on the conduct of ministers so very feeble.

There is one reflection, of a pleasing nature, suggested by the preliminary circumstances even of the present painful crisis. Mr. Pitt remarked, in his celebrated speech on the King's Message, that on no occasion had any king ever given more ample information to his people respecting the grounds of his conduct in the question of peace or war, than had been done on

the present occasion by our gracious Sovereign in the papers on the table. It is undoubtedly true. So complete a disclosure of diplomatic intercourse, and of the secrets of cabinets, is a new circumstance in the history of mankind. Till very lately mysteriousness and secrecy was accounted one of the refined arts of governing mankind. State secrets were regarded as a sacred deposit, to which the purified and initiated alone ought to obtain access, and which ought to be carefully and religiously guarded from the approach of the vulgar and profane. Under this idea was propagated the notion of a peculiar mystery and craft in the art of government, to which the lights of ordinary and cultivated reason were not applicable. Wrapt up in this mysteriousness, statesmen considered themselves as exempt from the criticism of the common race of men; and by the same reason, exempt in a great measure from all obligation to seek their esteem and approbation, by improvements in the government of the country, in the application of the revenue, or the system of the laws. We give Mr. Pitt the credit of advancing with more than its natural rapidity the publicity of the acts of government in this country. It was he who began the practice of presenting to parliament simple and distinct accounts of the public receipt and expenditure. Before his time the accounts were kept in such a manner, that a true judgment could be formed of them by no body, except by those who had the conduct of them. During the whole of the American war there is not a trace on the Journals of an account of all the taxes having been offered by the ministers, or called for by the opposition, till the account published in the Report of the Finance committee in 1782. In that report an account was given of the nett produce of all the taxes from 1774 to 1782, distinguishing each year. But as that account consisted of more than a hundred and fifty *items*, put together in a confused manner, not totalled either by the officer of the Exchequer or the committee, the result could not be stated. The full and clear details of the national receipt and expenditure, now annually presented to parliament, are intelligible to those even the least conversant with accounts; and afford the most important instruction, not only with regard to the application of the national money, but with regard to the state and movements of the national industry and wealth. This important practice first exemplified by this country, has been followed by consular France, and will, we doubt not, become more and more general every day. The disclosure too of the diplomatic transactions between different countries scarcely precedes the æra of Mr. Pitt's administration; and undoubtedly has been carried to the greatest perfection which we have yet seen, in the papers relating to the present rupture with France, which have been presented to parliament. Here again France has followed our example. She has published her documents of the same transactions. This is highly important. By this mutual and opposite exposure, we have the most complete proof that full information is communicated to us on the subject. And every man, making allowance only for the measure of his understanding, is placed in the same condition to form a correct judgment as the minister himself. No check on the measures of government is so salutary and powerful as this necessity of displaying them to the eyes of the people.

Amid the serious and awful considerations, too, which the entrance upon a great and difficult war naturally inspires, an emotion of a lighter kind has been transiently raised in our minds upon comparing the accusations with which the two governments chiefly concerned load one another. They not only lay the blame of the rupture reciprocally upon each other, which was to be expected; but each assumes to itself the very same virtues which are claimed by the other; and imputes to its antagonist the very same vices with which it is accused by that antagonist in its turn. Each nation claims to itself the most ardent desire for the preservation of peace; each claims to itself the merit of consummate moderation and forbearance; each charges its neighbour with a desire to renew, for selfish purposes, the horrors of war; and each charges its neighbour with overbearing pretensions, and intolerable insolence. This strange interference of the pretexts of the war on the different sides is not one of the least extraordinary particulars in the present extraordinary state of affairs.

Our readers are well acquainted with the manner in which the charges against France of a turbulent, and hostile, and overbearing disposition are made out. The following words, from a speech in the tribunate by Boissy d'Anglas, are a specimen of the mode in which the same charges are advanced in France against this country. "It must be told," says that orator, "to France, to Europe, to posterity,—the government which commands us has exhausted all the means which could be used to turn far away from us the terrible scourge of war; it cannot be responsible for the calamities which will follow. It has not been directed in the negotiations which it opened with so much ardour, and prosecuted with so much good faith, by the desire of encreasing any farther its power, or of oppressing a rival nation; it has been animated solely with the desire of peace, and with the hope of rendering it eternal by founding it upon just principles; nor shall its efforts to attain that end be lost, either for its own glory, or for the national gratitude. It is not France which has sought to exercise over another country a supremacy incompatible with its independance and its dignity; it is England. Yes, people of France, surrounding nations, future ages, it is England, it is England who, in the midst of the general pacification, throws forth the torches of war, it is she who thinks that in the ten years which have passed blood enough has not been shed in Europe, and still demands more; it is she who wishes to suspend the progress of our internal prosperity, who wishes to interrupt our projects of commerce, the regeneration of our industry, the improvement of our agriculture; it is she that would force us to consume in warlike preparations the capital required for our manufactures, for the formation of our canals, the reparation of our roads, and the restoration of our navy; it is she who, tormented to behold a repairing government rapidly healing the deep and painful wounds of a revolution which she contributed but too much to excite, wishes to renew amongst us the

evils which we so long suffered, and of which the greater part was the work of her own Machiavelian cabinet."

Such is the general spirit with which the government of France wishes the French nation, and the other nations of Europe, to believe that it is animated on the one hand, and England on the other, in the present juncture; and in many respects similar, only reversing the application, and in terms not quite so oratorical, is the general spirit with which England represents itself and France to be actuated. One difference indeed is of some consequence. The government of England brings forward distinct acts of the French government to substantiate its charges, and then the world is at liberty to judge whether they are supported or not. The French orators barely assert their charges, and clothe them in quaint and bombastic language. And this is frequently a very effectual contrivance for procuring partisans to a bad cause.

In one subject of accusation, the French seem to think that they have peculiarly the advantage. On this accordingly they dwell with singular emphasis. The English are treaty breakers, faithless, violators of the law of nations, perjured, who having stipulated to evacuate Malta, now refuse to fulfil that stipulation. We should not be surprised if the government of France succeeded in persuading many persons, both in France and in other countries, that this accusation is well-founded. For nobody is so superficial as to be unable to see whether the letter of a treaty has been complied with or not: but it often requires a power of mind which many people possess not, to combine all the circumstances of a complicated case, and to judge clearly whether the spirit and substance of that treaty has not been violated by the opposite party before. It is an easy part then which the French have to support in this case. They have only to hold up the letter of the treaty, and cry perjury, and violation of the law of nations; and every body can understand this, because the English are still in possession of Malta. But it is a much more difficult task which the English have to perform. They have to explain the injustice of the French towards Switzerland, the king of Sardinia, and Holland, and the symptoms of their evil intentions with regard to this country, they have then to shew, by an application of the general principles of the law of nations, that such conduct implies hostility against England, and that unprovoked hostility justifies the recapture of surrendered places, and by like reason the retention of them if they happen not to be surrendered. But this is a long train of circumstances, which many people are perfectly unable to combine, and to estimate their joint force upon the point in question; they do not feel that force; they yield their assent therefore to that side of the argument which they easily understand. And the French seem on this account to rest the chief hopes of their justification on their declamation with regard to this subject. It is a topic peculiarly suited to the French genius. High sounding words and confident assertions have the best effect; and well selected facts or deep principles would be here altogether out of place.

When they expatiate however upon the importance of Malta, they unwarily betray that they are actuated by something different from a mere regard to the honour of a treaty. The language of Boissy d'Anglas on this subject is so particular that we think it will gratify our readers to hear it. "By retaining the island of Malta," says he, "in defiance of the most formal stipulation of the last treaty, England wishes to deprive us of our commerce with the Levant, to prepare for herself the means of oppressing that part of the world, and our most ancient ally the emperor of Constantinople; to get possession of Egypt, to conquer the Mediterranean, to shut up or render useless the harbours which we have in it, to subjugate Italy, to domineer over Spain, and from the top of that impregnable rock to dictate to all the maritime powers, and triumph over our weakness."—"If," he adds, "in contempt of the treaty of Amiens, England would retain that possession, if she dares exact that it should be resigned to her, there is no pretension which she may not advance to-morrow. To-morrow, at the pleasure of a new minister, who may desire to outstrip his predecessor, she will forbid us to have harbours, arsenals, or dock-yards; she will inspect our magazines, fix the number of our ships; will, as formerly, forbid us to repair the fortifications of our cities, will impose upon us the obligation of receiving from *her* only the commodities of Asia and America, and thus rendering us the sport of her tyrannical legislation, will gradually consummate our humiliation and our ruin." It is a little imprudent however to exaggerate so vehemently the importance of Malta. Because, if it be so valuable, since we have unanswerable reasons for going to war, the stronger motives have we for retaining it.

There are two other opinions of the French statesmen with regard to this country which deserve the regard of our readers, as they are such decisive proofs of political ignorance, of false ideas concerning one of the most striking peculiarities and important circumstances in the state of modern society. The first of these opinions is, that England, by the great superiority of her commerce, which excludes from almost every market the competition of every other nation, exercises a tyrannical monopoly over the other countries of Europe, and retards the improvement of their industry. The second opinion is, that the greatness of England, however dazzling, is not erected on a firm foundation, as that of France; the one resting on an artificial and tottering system of public credit, the other on the natural and immoveable basis of an immense territory and population.

The first opinion can be formed only from not knowing even the meaning of the word monopoly. When two tradesmen set up in a particular town, and the one supplies the inhabitants with goods so much better and cheaper than the other, that no one will buy any thing from that other, is this a monopoly? It is on the other hand fair competition, and the necessary effect of that competition, the preference of the cheapest seller. But if this excluded dealer should raise a loud complaint, cry monopoly, and persuade the townsmen to expel the successful dealer, that they might hereafter buy only from himself, and such dealers as resembled himself, would not this be merely

to desire the townsmen to buy dearer from him, than they might from another? This is precisely the conduct of France with regard to England. We send our goods to foreign markets, to which the goods of France and of every other country are as free to go as ours. The purchasers take our goods, and refuse theirs; but that is merely because they judge them to be better, or cheaper. We have no means of forcing any community or individual to take our merchandise, we can only endeavour to make them chuse to take it. When the French therefore raise the cry of monopoly, they imitate exactly the inferior tradesman who would persuade his fellow townsmen to expel the superior, that he himself might enjoy the whole business. This in the first place is the height of injustice with regard to the superior tradesman; and in the second place an infamous deception with regard to the interest of the townsmen.

As to the insinuation that this superiority of the English goods is a discouragement to the industry, and an obstacle to the improvement of the other countries of Europe, the case is exactly the reverse. Whatever country purchases our goods must produce something to pay for them. This something she cannot produce without industry. The more excellent our goods are, and the more she is tempted to procure a large quantity of them, the more must she increase her industry to procure what we want in return. One of the leading circumstances on which the progress of industry depends, is the extent of the market opened for its produce. To open a market is to offer an acceptable equivalent for the goods which are to be sold. The whole of the articles of British commerce offered to sale on the continent are this equivalent. The whole of these articles form an immense market for the produce of the land and labour of the different countries. Take away this market, and you take away the whole or the greater part of the industry which supplies it. That a rich and industrious nation, placed in the neighbourhood of others less rich and industrious, is unfavourable to their progress, is a most extraordinary opinion. It would be natural to think that the example of such a nation would stimulate the rest to imitation, and afford them instructions which would greatly accelerate their progress. If it be objected that the more commercial nation, by supplying all the wants of its neighbours, leaves no opportunity for the rest to introduce themselves, no speech can betray more ignorance of the nature of commerce. The more commerce is extended the more does it create encouragement for farther extension. Is it supposed that Great Britain, by the great perfection and extent of her manufactures, requires and obtains fewer articles of supply from her neighbours, than if she had no manufactures? Is it not on the contrary true, that when her exports were small, her imports were small likewise, and now that her exports are vast, so also are her imports? Great Britain, however, certainly supplies her own wants with her own manufactures much more completely than she supplies those of any other country; and yet by perfecting these manufactures she has increased her own wants many thousand fold. Would the improvement of the industry of the other countries of Europe diminish the demand for the industry of Great Britain? Nothing would tend so much to increase it. Were France, for example, by the perfection of her manufactures, to rival us in many of the commodities which we now supply, she would, by the increase of her own wants, much more than compensate this disadvantage by her increased demand for something else in which she could not rival us.

The second opinion, which we mentioned, that a great territory and population is the only solid foundation of power, is so belied by all history, and the most obvious deductions from the established principles of human society, that it is inconceivable it should ever have been advanced. The empire of Persia under Xerxes was immense in territory and population; the Greek states were insignificant in both. The Roman empire under Justinian was the greatest ever seen. In the time of Scipio it hardly extended beyond the Alps. That the perfection of industry, and wealth, the fruit of commerce, is a feeble foundation of greatness, is likewise a strange position. What is it, according to the present system of war, which renders wars unsuccessful? Not the want of men; for it is not a very great number of men that is required; but the want of ability to maintain them long enough in the field. What is it that makes the rulers of France boast so much of their intentions of improving the industry, and increasing the wealth of the country, if it be of so little importance? But despairing of leading any one to believe that industry and riches are not a solid ground of power, they call the industry and riches of Great Britain public credit; they next try to confound public credit with the national debt; and as it is pretty clear that the national debt is not a very solid foundation of strength, they next give out that public credit and wealth is no solid foundation of strength. The following may suffice to France as an answer to her insinuations with regard to the national debt: the national debt is only an inconvenience on account of the taxes to which it gives occasion. But France is more heavily taxed than Great Britain notwithstanding her debt.

Biographical Sketch of Lord Redesdale, *concluded from Page* 592.

Mr. Mitford found that he had given a proper direction to his talents. His fame as a chancery draughtsman soon extended itself. Cicero, speaking of the arts, says that they are united by a *communi vinculum*; the same may be said of business: however complex and varied, one branch may be made subservient to another. Our young lawyer felt the force of this truth, and that a judicious arrangement of business was the clue which promised to lead to dispatch. In this arrangement, however, he took care that a certain portion of his time should be dedicated to the calls of friendship, and the enjoyment of social life; that, as the reward of labour sweetened his toil, the conversation of his friends might add a zest to it. We have already observed, that his first care was to apply the fruits of his industry towards the gradual redemption of the family estate; it does not appear, however, that his wishes carried him far beyond his paternal bounds. He was content to restore a vene-

rable mansion to that splendor in which, to the happiness of all around it, it shone for ages. Mr. Mitford and Mr. Pitt, during their residence in Lincoln's Inn, had contracted a friendship which time has continued to increase. The former, therefore, naturally enlarged his views when the youthful Palinurus was called to the helm of the state; and, to the credit of Mr. Pitt, he did not, in the words of Dr. Young, "take a memorandum to forget." Some years, however intervened before the Chancellor of the Exchequer had an opportunity of evincing the esteem which he entertained for him. In 1789, Mr. Mitford was returned to serve in Parliament for the borough of Beeralston, in Devonshire. On his appointment to the office of Solicitor General, he quitted his chambers in Lincoln's Inn, and took a house in the Adelphi, where he lived in a style of elegant hospitality. In this situation he discharged his duty to his King and Country with the most scrupulous attention, which was increased, when he was raised to the rank of Attorney General.—On the eighteenth of February, he was chosen Speaker of the House of Commons, and on the same day, sworn a member of his Majesty's most honourable Privy Council. To succeed one of the ablest speakers that ever filled the chair, required an uncommon knowledge of every thing that was connected with the dignity of the House, and the rules, orders, and solemnity of its proceedings, &c. In a short time, the members were convinced that their election had fallen on a proper person, every way qualified to discharge that important trust, and still farther to maintain the rank of the FIRST COMMONER by the splendor of his establishment. In consequence of the death of the Earl of Clare, the first law department in the sister kingdom became vacant.—His Majesty's ministers conceived that they could scarce give a better proof of the interest which they took in the happiness of that country, than in the appointment of a successor whose integrity and knowledge of the laws were universally acknowledged. Accordingly, on the 13th of February 1802, the following article in the London Gazette gave universal satisfaction:

"The King has been pleased to grant the dignity of a Baron of the United Kingdom of Great Britain and Ireland, unto the Right Hon. Sir John Mitford, Knt. and to the heirs male of his body lawfully begotten, by the name, style, and title of Baron Redesdale, of Redesdale, in the county of Northumberland.

"The King hath also been pleased to order letters patent to be passed under the Great Seal of that part of the United Kingdom of Great Britain and Ireland, called Ireland, containing a grant unto the said Right Honourable John, Baron Redesdale, of the Office or place of Chancellor and Keeper of the said Great Seal, in the room of John, Earl of Clare, deceased."

No man, perhaps, ever passed through a more regular gradation of office than Lord Redesdale, or ever gave more general satisfaction in each of them. As a senator he had not, as Mr. Burke was heard to say, "the happy knack of linking words and phrases together," he seldom spoke on any question that was not immediately connected with his situation as Solicitor and Attorney General, and even on those occasions he offered himself to the chair with the greatest diffidence. He appeared to be sensible of his own defects as an orator, and though he had conquered many of them by the force of industry, yet he was aware that a felicity of expression could be only attained, if attainable by art, from long habit and rigid application; and was therefore content to shine with unborrowed light in his own sphere.

"*Non habet officium lucifer omnis idem.*"

His integrity as a Judge, and his social manners have endeared him to the Irish; the affection appears to be mutual, for it is said that he intends to dispose of his estates in England, and to purchase lands in Ireland. This, besides, is an additional proof that tranquillity is re-established in that country, and we are persuaded that nothing will be wanting on the part of Lord Redesdale to contribute to the continuation of that inestimable blessing.

His Lordship was married on Tuesday, by the Lord Bishop of Durham, to the Right Honorable Lady Frances Perceval.

NOTICE.

Great works are said to be carrying on to open passages over Mount Cenis, Simplon, and Genevre, not merely for travellers, but the transportation of all sorts of goods, and thus to extend commercial intercourse. Every thing is overcome by the spirit of modern enterprize.

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NUMBER 24.] THURSDAY, JUNE 16, 1803.

PHYSICS.

1. *A new Anatomical Nomenclature, relating to the terms which are expressive of position and aspect in the Animal System.* By John Barclay, *M. D. Lecturer on Anatomy. Edin.* 1803.

MUCH has been said relative to the progressive nature of man. But this progress belongs not to man as an individual, but to the species. Every person gradually acquires certain opinions and ways of thinking, which he finds it impossible to change, and which imperceptibly check his advancement, and at last stop it altogether. We cannot bear those things, which we have been accustomed to consider as first principles, to be called in question; and would be better pleased to sit down quietly in an error, than to risk an investigation which might force us to alter our system. When Lavoisier first announced to the Academy of Sciences his intention of pulling down the theory of Stahl and substituting another in its room, Macquer who had been himself a reformer, and who was celebrated for his candour and liberality, wrote to Morveau in the greatest perturbation, hinting that he was now too old to learn, and that if his system were overturned he would relinquish the science. Lavoisier's converts even in France were young men, the old resolutely and steadily opposed him. When Hervey announced his discovery of the circulation of the blood, he was vilified by the whole body of established physicians, and his arguments produced conviction in no man older than 40. Every race of men receive the stock of knowledge possessed by their predecessors, and set themselves with ardour to add their own discoveries to this stock. At first their labour is crowned with success, and the fund of knowledge accumulates. But as soon as their modes of thinking are fully established, their ardour cools, their prejudices gather strength, they think they have collected the whole sum of human knowledge, and consider it as impertinent vanity to pretend to correct their opinions or discover new truths. Now a new race appears animated with their original ardour, and destitute of their prejudices. Some of the mistakes of mankind are rectified; new truths are detected and added to those already discovered by their predecessors. But every step which this new race makes is opposed by those veterans who had run their career before them. Every thing is canvassed to the utmost by men who are determined not to admit of innovations.

Thus the progress of knowledge is owing to the successive races of inhabitants which occupy this globe of ours. Were mankind immortal upon earth, knowledge would have been always stationary. The first inhabitants would have been satisfied with the progress which they had made at first; their prejudices would have increased with their years, and they would have prevented their posterity, by the influence which they must have over them, from venturing to oppose their prejudices, or from opposing them successfully. It is to *death*, then, that we are indebted for the gradual improvement of the human species. Every race is permitted to live till it has finished the career of its discoveries, and done every thing it is capable of doing towards increasing the stock of human knowledge. And even after it has ceased to accumulate new truths it is still permitted to continue for some time to watch over the conduct of the succeeding race, in order to prevent them from proceeding with too little caution, and from receiving opinions not sufficiently supported by evidence, a conduct which might endanger the destruction of every thing collected by the industry of preceding ages. But after they have sufficiently discharged this task they are swept off the stage, that their prejudices and their influence may not oppose an insurmountable barrier to the progress of knowledge.

If such be a fair statement of the conduct of mankind, as we presume it is, it will not be difficult for us to foretel the reception which the Anatomical Nomenclature now under our consideration will meet with from the anatomical world. However imperfect the anatomical nomenclature at present may be, however ill adapted to prevent ambiguity, and to convey clear and precise information, whatever unnecessary labours it may impose on the student, however adverse its unwieldy and unmanageable terms may be to the future progress of the science; though all this, and much more than this, should have been felt and acknowledged by every anatomist of good sense; nay, even though various attempts should have been made to rectify these defects, and though anatomists should have agreed unanimously, that it was absolutely necessary to rectify them; notwithstanding all this, we may affirm with the utmost confidence, and without the smallest risk of being deceived, that this attempt of our author will be opposed and disapproved of by all those anatomists who have advanced beyond the age of improvement, whose prejudices have acquired a complete ascendancy over them, and who are of opinion that the whole knowledge of the subject is concentrated in themselves, and that every deviation from their standard is a direct insult upon their attainments, and an attempt to lessen their dignity in the eyes of the world.

Nor will this opposition be lessened by the merit of the nomenclature now offered to the public; so far from it, that this circumstance will only tend to increase the opposition. For the opposition to innovation is generally in proportion to the importance and propriety of the change proposed. Nor will the opponents be those only who have grown grey in the service of anatomy. All those who have acquired a reputation, or who think that they ought to have acquired one, all those who are in public situations and

connected with colleges or other similar institutions, will naturally combine against it. The indolent anatomist will decry it as subjecting those who know the science to unnecessary trouble; the dull will oppose it because it will enable others to learn anatomy with less trouble than it cost themselves; the conceited because they did not propose it themselves; and the politicians because it may raise its author to the same rank in the eye of the world as they hold even when assisted by situation.

Such is the opposition which this new anatomical nomenclature is likely to meet with. It will be supported only by the small number of anatomists who are above the reach of silly prejudices, who are really anxious to improve the science, and who are conscious that their well earned reputation cannot be injured by the success of others; and by the young anatomist who has much of the science to learn, and who cannot overlook the advantages of a precise and systematic set of terms over the present vague, diffuse and unwieldy nomenclature which it is intended to supersede.

The treatise of Dr. Barclay is preceded by a long introduction, pointing out with much liveliness the necessity of a reformation in the anatomical nomenclature, and disclaiming any peculiar merit or pretensions to superiority from having undertaken it. The object of the three first chapters seems to be to point out the necessity of a systematic language for science, and the sources from which this language is to be derived.

Anatomy, strictly so called, is a description of organized beings, detailing the precise shape and situation of all their component parts. The terms which it requires, are words capable of defining with the greatest precision the situation of every organ with respect to the whole body, and the situation of every part of an organ with respect to the whole organ. There must be terms for every particular organ, and terms capable of specifying exactly every particular shape.

If every individual animal, or even species of animal, had a set of organs bearing no resemblance either in structure, or form, or use, to those of any other species, a set of terms would be necessary for every species. This would make the language of anatomy so copious that it could not be acquired without much labour. Fortunately a resemblance may be traced between the organs of all animals, and even between their forms and position. This renders it possible to extend the same system of terms to all animals. But the external form of animals differs so very much that great address is necessary in making this extension. It was in this chiefly that the old language of anatomy failed most glaringly.

The terms of anatomy are of two kinds, either the names of organs, or names indicating situation and position. For the shape in most cases must be indicated by description, not by coining terms for every peculiarity. It is the second set of terms that is of most importance, because they alone can give us any adequate notion of the appearance and structure of an animal which we have not seen. Accordingly our author applies himself, in the first place, to rectify these terms. This is the subject of the fifth and sixth chapters. He has new modelled the whole of these general terms, and the changes which he proposes appear to us in the highest degree proper and advantageous. They unite the advantage of precision and universal application, and at the same time deviate much less than could have been expected from the old order of things. We regret much that we cannot in this place enter into the discussion which would be necessary to convey to our readers the immense advantages which would result from the use of the new terms. Some very beautiful specimens have been given by our author. We shall, however, subjoin some of the terms.

In the trunk, for *superior* and *inferior*, our author substitutes *atlantal* and *sacral*; the words superior and inferior apply only to the human trunk as they are used by anatomists. In other animals, the position of the trunk is so different that they puzzle instead of conveying information. In general, superior means *towards the head*, and inferior is the opposite. But even this definition scarcely applies in all cases. The bone of the vertebral column nearest the head is called *atlas*, and at the other extremity the column terminates in the *sacrum*. This holds in all animals that have such a column. By *atlantal* then is meant towards the atlas; by *sacral* towards the sacrum. This conveys a precise meaning, which applies to all animals, and it has the advantage of connecting the nomenclature with the bones, which ought certainly to constitute the basis of anatomy, because they determine the position of the organs. For *anterior* and *posterior*, terms equally vague when applied to the lower animals, our author substitutes *sternal* and *dorsal*; the meaning of which is too obvious to require explanation. For *external* and *internal*, he substitutes *dermal* (towards the skin) and *central*. For *external* when speaking of an organ, he substitutes *peripheral*.

Those blood-vessels which contain purple blood are called by our author *pulmonic*: those that contain vermillion are *systemic*. This we consider as a vast improvement. The terms are happily chosen. They need no explanation.

The *superior* extremities our author calls the *atlantal*, the inferior he calls *sacral*. The part of the extremity nearest the trunk is the *proximal*, the remote end is called *distal*. In the atlantal extremities the terms *radial* and *ulnar* denote towards the two sides; the term *anconal*, towards that surface in which the olecranon projects, and the term *thenal*, the opposite. In the sacral extremities, the terms *fibular*, *tibial*, *popliteal* and *rotular* are employed in the same manner.

Our author next considers the general terms necessary in describing the head. He shews that the words atlantal, sacral, sternal, and dorsal, may be extended with advantage to the head, and that by means of them much curious information relative to the anatomy of the inferior animals may be conveyed in a very concise manner. The terms dermal, central, dextral, sinistral and mesal, are equally applicable to the head and trunk, but several new terms are necessary in describing the head, which our author we think has contrived with much judgment. These terms are *basilar*, *coronal*,

inial, glabellar, antiinial. They are derived from different remarkable places in the cranium, and our author shews how the tribe of the animal may generally be ascertained, by observing the position of imaginary lines joining these points. For a more particular account we find ourselves obliged to refer to the book, which we would earnestly recommend to the perusal of every lover of anatomy. In the last chapter our author points out several changes of termination by which the new terms may be adapted to all the variety of cases necessary in anatomical description. And several plates are added to prevent the possibility of misunderstanding the meaning of the new terms.

Such is a short analysis of this interesting performance. Our readers will perceive that the author confines himself entirely to the general terms of anatomy, promising however, if they should be approved of, to proceed to apply the rules of nomenclature to the other branches of the subject. We sincerely hope that they will meet with every encouragement to which they are so well entitled. But before they can be adopted generally, either by teachers or students, it is absolutely necessary that there should be a system of anatomy in which the nomenclature of our author is employed. For how can teachers make use of terms which would make their students incapable of understanding all the books of anatomy, or how can students prefer terms which can be of no service to them in the course of their studies?

We sincerely hope that our ingenious author has not overlooked this circumstance, and that the present essay is to be followed up with a system of anatomy, in which the new terms alone are employed. The nomenclature of Linnæus would not have gained a single proselyte had it not been accompanied by a system of botany. It was its excellence, rendered apparent by the happy clearness which it introduced into that system, that gave it currency. Had the nomenclature of the French chemists been published singly, it might have been admired, but never would have come into use. But the authors of it took care that all chemical works of merit should appear in that new dress. Chemists were obliged to learn it in order to become acquainted with these books. It became familiar, its advantages were seen; the prejudices against new terms wore off gradually by use, and thus it was insensibly adopted in spite of opposition.

If the author of the present nomenclature does not adopt a similar plan, whatever merit his new terms may possess, they will remain neglected and unnoticed; and very properly so. Let him publish a system of anatomy, and shew the world the advantages which attend their use. Let it be superior to every system which has hitherto appeared in arrangement and precision. And the new terms will enable him, if we mistake not, to give it that advantage. It will come into general use, and will be preferred by students as the best introduction to the science. The new terms will become familiar, their advantage will be seen. The young anatomists will learn them first, and will conceive a partiality for them, and even the teachers must gradually get acquainted with them in order to avoid the sneers which young men are apt to throw out against teachers, of whose knowledge or candour they have any suspicion. Thus we have pointed out the path of success, and we hope that our ingenious author, whose ardour for the science is excelled only by the progress which he seems to have made in it, will not disdain to pursue a hint which must lead to the accomplishment of his wishes.

2. *Some Account of Bernard Palissy.*

The patience, abilities, and industry necessary to bring some of the most common kinds of manufactures to the degrees of perfection which they have attained, can scarcely be conceived by those who have not bestowed some pains on similar studies. Hence the merit of inventions and improvements is apt to be overlooked, and in many cases not even the names of the authors have been transmitted to posterity. The reverse ought certainly to be the conduct of mankind; discoverers and improvers ought to enjoy the reparation which they have deserved, not merely as a reward for the favours they have conferred upon society, but as an incitement to others to imitate their conduct. The original discoverers of glass, stone-ware, soap, and a thousand other indispensable articles, are unknown: and even the modern improvers of these manufactures have seldom shared a better fate. This has been owing partly perhaps to precautions taken by most improvers to keep their processes secret, the better to secure the profit with which their successful labours are usually followed. The reverse was the conduct of the extraordinary man who forms the subject of this article.

Barnard Palissy was born about the middle of the sixteenth century, in Agenois, a town in France. He was originally a common labourer. But though destitute of education, was not the less accurate an observer of nature. Many surveys made in different parts of the kingdom, suggested to him the opinion, that France had formerly been covered by the sea. He appeared in Paris, and announced and publicly supported this opinion, as the custom then was, against the arguments of every opponent. Even the threats and persecutions of the church were unable to shake his firmness.

For several years after, he employed himself in trying different experiments, in order to discover the method of painting in enamel. But some person presenting him with a beautiful cup of that kind of stone-ware called by the French *faience*, because it was first manufactured in a city of Italy called *Faenza*, the sight of this cup inflamed him with an insurmountable desire to discover the method of applying enamel to stone ware.

At this time he was ignorant of even the first rudiments of the art of pottery, nor was there any person within his reach from whom he could procure information. These considerations, however, did not discourage him. Neither was he deterred by the enormous expence, considering his fortune, into which he found it necessary for him to plunge, not by the number and nature of the preliminary experiments which he was obliged to perform.

All his efforts, however, were to no purpose. His

experiments were unsuccessful: he wasted his whole fortune and even injured his health, without gaining his object. This ill success naturally drew upon him the reproaches of his family, the railleries of his friends, and the sarcastic remarks which mankind never fail to make in similar cases. Our unfortunate potter was obliged to yield to necessity, and relinquish his undertaking. But he gave it up only for a time, and in order to save as much money as would enable him to prosecute his experiments. A few years of industry and frugality had no sooner put it in his power, than he returned to his project with more ardour than ever. The same fatigues, the same sacrifices, the same expences were incurred a second time, but the result was different. He discovered, one after another, the whole series of operations, and ascertained the method of applying enamel to stone ware, and of making earthen ware superior to the best of the Italian manufacture.

This success immediately altered the opinion of the world. Instead of the ridicule which they had been accustomed to throw upon him, his friends now treated him with respect, and considered him as a man of genius. The court of France took him under its protection, and enabled him to establish a manufactory, where the manufacture of the species of stone ware which he had invented was brought to a state of perfection.

The only improvement which was made upon it afterwards in France, was the application of different colours upon the enamel, and imitating the paintings which had been executed long before on porcelain vessels. This improvement scarcely dates farther back than thirty or forty years. It was first put in practice by Joseph Hanon, a native of Strasbourg, and was suggested by a German, who sold to Hanon the method of composing the colours applied upon the porcelain of Saxony. These vessels were soon after superseded by the Queen's ware of the celebrated Wedgewood, which both in cheapness, beauty, and elegance of form, far surpassed any thing of the kind that had appeared in Europe.

NOTICES.

A physician of the name of *Buchan*, who attended on the English army in Egypt, has paid unwearied attention to the Plague; and from his observations it appears that the most efficacious remedy is to put the Patient under a course of Mercury.

The Vaccine Inoculation has been introduced into the Morea with great success by Dr. Scott, who attended Lord Elgin in his embassy, and is lately returned to England. This physician during his residence in the East, visited the plain of Troy, and found many things to correspond with the description given by Homer.

Doctor *van Marum* at Haarlem, director of the cabinet of Natural History in that city, and secretary to the Batavian Academy of Sciences, has during his late residence in Paris concluded an agreement, by virtue of which the Museum at Paris, and the Cabinet of Natural History at Haarlem, are henceforth to exchange their duplicates. In consequence of this agreement, the Directors of the above Museum have already transmitted to Haarlem, among other articles, the following zoologic specimens:—*Simia Sennulus, Felis once, Felis concolor, Hystrix prehensilis, Myrmeuphaga jubata, Ardea pavonica, Palamedea cornuta, Tantalus loculator*, and *Struthio casuarius*.

The Zealand Academy of Sciences at Flushing has proposed the following prize-questions for the present year:—

1. What is the cause of the continual decrease of the sea-coast and downs in Zealand? Do there exist any means which may be effectually employed to prevent or lessen the pernicious consequences resulting therefrom, and what are these means not hitherto known or employed?

2. Is the establishment and maintenance of manufactories in Zealand attended by more difficulties than in other parts of the Batavian Republic, where the necessaries of life are equally dear? And what are these difficulties? Should no peculiar difficulties exist in that district, point out the reason, why manufactories from time to time fall to ruin in Zealand, without being replaced by others.

3. An Island named *Schoonevelt*, being mentioned by all historians, as well as in some ancient maps, as having been situated before or at the mouth of the Scheldt, information is required, whether the former existence of that island can be established by authentic evidence, or whether that denomination merely applies to some bank of sand? And whence that appellation is derived?

The memoirs, written in the Dutch, Latin, or French languages, must be transmitted to *A. Dryfhout*, at Middleburgh, Secretary to the Academy, before the 1st January, 1804; on which day the prizes, consisting of gold medals for a satisfactory answer to the first and second question, and of a silver medal with regard to the third, are to be adjudged.

Among the most beneficial modern institutions, tending to perfect and diffuse both the theoretical and practical knowledge of the most important branches of husbandry, the *Georgicon*, an agricultural Academy, established by Count *George Festetitsch*, at *Keszthely* upon *Balaton*, in the Comitate of *Szalad* in Hungary, holds a distinguished rank. The course of lectures is calculated for three years, which at least the six students, who are on the foundation, are obliged to go through; they are also made to perform by turns, the functions of cashier, steward, who has all the productions and implements under his care, bailiff, who superintends all agricultural operations, inspector of the vineyard, gardens and bee-hives; accomptant, or book-keeper, and inspector of the cattle, fowls, &c. in order to acquaint them with the practical part of every branch of husbandry. The officers of the *Georgicon*, are—1. A steward, who is at the same time professor of agriculture and technology, which place is at present most respectably filled by Director *Asboth*; a surveyor, who is also professor of mathematics and civil architecture; and an accomptant, who is at the same time assistant professor of agriculture. For the most interesting purposes of scientific instruction are appointed, 1. The above-mentioned professor of agriculture and his assistant; 2. a professor of mathematics, who instructs also in civil and rural architecture, hydrotechny, book-keeping, and drawing; and 3. a professor of physics, comparative anatomy, and the veterinary art. The lectures are delivered in the Latin tongue, the usual learned language, and the idiom of the Inns of Court in Hungary, and the students have the free use of the choice and numerous library of the noble founder, who has generously devoted to the support of the Georgicon, one of his most important estates, the manor of *Keszthely*, which in point of land, meadows, gardens, vineyards, woods, black and other cattle, buildings, &c. contains whatever is required for the attainment of the beneficial purposes of the institution.

LITERATURE.

1. *Some Account of Benjamin, Count Rumford.*

SOME very interesting particulars of the life of Count Rumford having been given to the world by his intimate friend, the celebrated Pictet, the philosopher of Geneva, in his travels in England, Scotland, and Ireland, in 1801, we believe we shall perform an acceptable service to our readers, by presenting to them in our own language, this sketch of the life of a man in whom we are all so much interested, a service which we are somewhat surprised that none of our fellow-labourers has already attempted. We shall transcribe as a preface, Pictet's own account of his motives to the performance, and his means of executing it.—I press the Count every day, says he, to commit to paper the leading passages of his wonderful life, which his memory faithfully recals, even to the anecdotes of his infancy. He declines; and besides, his actual occupations, which are excessive, do not afford him time. But who knows if ever he will find it? I consider it to be my duty, as a friend, to avail myself of the chance of being near him to endeavour to procure in our conversations the most striking particulars of his life. I am likewise placed in a situation to collect from the mouths of two of his most intimate and ancient friends, whom I see frequently, Sir Ch—— B——, and Mr. de P—— the Bavarian Envoy, many facts which his modesty would conceal from me. I shall thus, by the union of all these means, have something more complete and authentic than those imperfect reports concerning him, given in the English Journals; which sometimes make him smile.

Sir Benjamin Thompson, Count Rumford, whom the half of Europe believe to be an Englishman, was born in 1753, in North America. His family, of English origin, had long been settled in New Hampshire, at the place formerly called Rumford, and now Concord; and possessed there some land previous to the war of the revolution.

If the death of my father, said the Count to me one day, had not, contrary to the order of nature, preceded that of my grand-father, who left all his property to my uncle, his second son, I should have lived and died an American farmer.

It was a circumstance purely accidental, when I was yet a child, which fixed my destiny, by directing my attention towards objects of science. The father of one of my companions, a most respectable clergyman, and a very enlightened man (his name was Bernard) took a liking to me, and from that single motive began to instruct me. He taught me algebra, geometry, astronomy, and even the transcendental part of mathematics. Before the age of 14, I had made sufficient progress in this branch of study to be able without his assistance, and even without his knowledge, to calculate and to trace graphically the phases of an eclipse of the sun. We observed it together, and my calculation proved exact within four seconds. I shall never forget the lively emotions I felt on occasion of this success, and the praises which it procured me from my teacher. I was destined to business; but from the period of this little event my passion for learning became irresistible, and I could apply myself to nothing, but to my favourite objects of study. I attended the lessons of Dr. Williams; afterwards those of Dr. Winthrop, at the college of Harwood; and under that able master I made considerable progress.

But at the age at which you then was, said I to him, is a young man master of his actions? How could you in this manner follow without resistance the species of instinct which led you to a different vocation from that to which you was destined?

Alas! replied he, soon after the death of my father, my mother contracted a second marriage, which proved to her a source of misfortune. A tyrannical husband turned me away from her: I was yet a child; my uncle, who survived my father only a few months, scarcely left me whereon to live. I was thus, at a very early period, launched into a world which was almost unknown to me, and it became necessary for me to acquire the habit of thinking and acting for myself, and of living on my own acquirements. My ideas were not yet fixed; one scheme succeeded another, and perhaps I should have acquired a habit of indecision and inconstancy, perhaps I should have lived poor and miserable to the end of my days, if a woman had not loved me, if she had not given me existence, a habitation, and an independent fortune.

I took a wife, or rather she took me, at nineteen years of age. I married the widow of Colonel Rolfe, the daughter of the reverend Mr. Walker, a most respectable clergyman, and one of the first inhabitants of Rumford. He had made three voyages to England, intrusted with public business; he was well-informed, and a most liberal minded man. He heartily approved of the choice of his daughter, and himself united our hands, and our destinies. That excellent man was sincerely attached to me; he directed my studies, he formed my taste; and my situation was, in every respect, the happiest which it is possible to conceive.

Here his heart became too full to proceed. I renewed the subject next day. You have in what follows the substance of my notes.

Unforeseen circumstances withdrew him from his peaceful retreat, and from the favourite studies which probably would have formed the chief occupation of his life, to make him act on the theatre of the great world, a part for which apparently he was not prepared.

At the commencement of the troubles of America, which preceded and brought on the war of the independence, Thompson, then 20 years of age, was united by friendship with the governor of the province, and attached to the government. The civil and military employments, with which, though still young, he was invested, naturally drew him into the royalist party by duty and gratitude. When the opposite party acquired the ascendant in his province, he was forced to abandon his home, and to seek an asylum at Boston, then occupied by the English troops. It was toward the end of the month of November 1773, that he secretly quitted his habitation, where he left his wife, with a daughter, of whom she had but lately been delivered. He never again has seen the former; and the beloved child whom she had

given him he found not till 20 years after, the period at which that young person, having lost her mother, came to rejoin her father in Europe. The contrast between the sweet and tranquil habits of her native country, and the bustle of the court of Bavaria, where her father then resided, was too great. She could not be reconciled to it. Her health declined; she sighed only for America; she has returned. She maintains a correspondence with her father, the most constant, and the most interesting, if a judgment may be formed from the fragments of it which he has permitted me to read.

Thompson was received with distinction by the commander in chief of the British army, and called to raise a regiment for the service of the king. But the events of the war having occasioned the evacuation of Boston, in the spring of 1776, he then repaired to England, and was the bearer of important dispatches to government.

At that time they had in England no exact information respecting the state of a country between which and the mother-country all connection had been cut off for several years. Thompson knew it perfectly, he could furnish certain intelligence respecting the topography, and the events of the war, in which he had borne a part. He soon acquired the confidence of the secretary of state for the colonies; some days after his arrival in London he was appointed secretary of the province of Georgia, an office which he never exercised. He remained in London connected with the office of the colonies.

During the autumn of the year 1777, his health becoming disordered, he went to Bath to take the waters. He there resumed his favourite pursuits, and performed an interesting set of experiments on the cohesion of different bodies. On his return to London he communicated the results of them to Sir Joseph Banks, and from that epoch dates the intimate friendship which has since subsisted between him and that illustrious president of the Royal Society of London.

He was in 1778 admitted a member of that respectable body; and he made in the same year his first experiments on gun-powder. The results which he obtained greatly excited his curiosity, and raised the desire of repeating the same experiments with great guns, and of chusing that occasion to study at sea the principles of naval architecture. With this view, in the spring of 1779, he went on board the Victory, a vessel of 110 guns, commanded by Admiral Sir Charles Hardy, who was his friend. He passed that whole campaign with the grand fleet of England.

He employed his time as he had purposed to do; he multiplied his experiments; and repeated them on different ships belonging to the fleet; and on his return to London he composed an essay on naval architecture, which is to be found, as a separate chapter, in the treatise of Stalkart on the same subject, published the following year. He joined to it a code of signals for the use of the navy, which has never been published.

Appointed under-secretary of state in the beginning of the year 1780, he was for thirteen months constantly employed in the office of the business of the American war. The regiment of cavalry called the King's American dragoons was raised at that period in his native country by his friends and agents, and he was at first appointed its lieutenant-colonel commandant.

This circumstance determined him to quit England for the sake of returning to America to serve with his regiment. He intended to land at New York, but the winds carried him to Charlestown. Compelled to pass the winter there, he was appointed to the command of the remains of the cavalry in the royal army, then under the orders of lieutenant-general Leslie. This corps was greatly reduced; he restored it speedily; and gained its confidence and attachment. He led it on several times against the enemy, and was often fortunate in his enterprises.

What is called good fortune and success in war is purchased by many scenes painful to a humane mind. The nature of the actions to which he was called multiplied these distressing scenes; it was a war of posts, and a civil war at the same time; much danger, therefore, and fatigue, little glory, and the sight of a people reduced to desolation and despair, such was his destiny every day. I have seen his eyes filled with tears, when he related to me certain anecdotes relative to this epoch of his military career. A German painter has attempted to represent one of those horrid situations, which I have at present neither the courage nor the time to describe.

Honoured with the esteem of the army, and furnished with the most flattering recommendations from General Leslie to the commander in-chief, Thompson set out in the spring of 1782 for New York, where he assumed the command of his regiment. Prince William Henry (the Duke of Clarence,) the King's third son, who reviewed his corps, delivered to him the colours with his own hand.

General Clinton was towards autumn replaced by Carlton, who equally imparted to Thompson his friendship and confidence. The feeble remainder of the two regiments which had served from the beginning of the war was joined to his corps, and he was sent to Huntingdon, an outpost of the army in Long-Island, where he passed the winter.

At the beginning of 1783, Jamaica being threatened, Thompson was chosen to command a body of troops destined to defend it; but the news of the peace having soon after arrived in America, that expedition was prevented, and he returned to England. There one of the first objects of his solicitude was to make a return to the confidence which had been reposed in him by the American officers; and he was fortunate enough to obtain for these victims of their attachment to the metropolitan country, the compensations which their sacrifices had deserved. By a solemn act of the legislature an honourable provision was secured to some hundreds of brave officers, notwithstanding a pretty strong opposition, which rendered the issue of the negotiation very doubtful.

General Carlton had mentioned Thompson in his dispatches as an officer of extraordinary merit. The king upon this recommendation, made him Colonel, though it was but two years since he had been made lieutenant-colonel.

Meanwhile the American war terminated. Thompson solicited to be employed with his regiment in

the East Indies; but the peace on the contrary occasioned the reduction of that corps, together with that of several others. He then obtained from the King permission to travel on the continent. His apparent motive was pure curiosity, and the desire of instruction; but, stimulated as he then still was by the military passion, he hoped to find an opportunity of serving as a volunteer in the Austrian army against the Turks. "I owe it to a beneficent Divinity," said he to me one day, "that I was cured in time of that martial folly. I met, at the prince de Kaunitz's, with a lady seventy years of age, and endowed with great sense, and knowledge. She was the wife of General de Burghausen; and the emperor Joseph II. often came to spend the evening with her. That excellent person formed an attachment to me; she gave me wise advices: and imparted a new turn to my ideas, by presenting to me in perspective other species of glory than that of conquering in battles."

On quitting England in the month of September 1783, he landed at Boulogne. He carried with him his horses, which greatly alarmed the celebrated Gibbon, whom chance rendered his companion on the passage. Gibbon himself confesses this in his correspondence published with Lord Sheffield, and he describes the master of these horses by three epithets which shew how quickly he had been able to appreciate him. He calls him, "the soldier, philosopher, statesman, Thompson." In the same vessel was the famous Laurent, the president of the American congress. He had been taken prisoner coming to Europe on board an American vessel, and conducted to England, where he remained shut up in the Tower of London till the peace.

Here commences a new epoch in the career of my illustrious friend, and a circumstance purely accidental had a decisive influence on his destiny. He arrived at Strasburg, where the Prince Maximilian de Deux-Ponts, now Elector of Bavaria, then Mareschal du camp in the service of France, was in garrison. That prince commanding the parade discovers among the spectators an officer in a foreign uniform, mounted on a fine English horse. He accosts him: Thompson informs him that he had just been employed in the American war; the prince pointing out to him several officers who surrounded him; "these gentlemen, said he, "served in the same war, but against you. They belonged to the royal regiment Deux-ponts, sent to America under the command of the Count de Rochambeau.

[What remains of this life shall be continued in our next Number.]

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2. Storia della Poesia Italiana scritta, da Girolamo Tiraboschi—Republicata da *T. I. Mathias*, 4 vols. 12mo. *Tiraboschi's History of Italian Poetry. By* Mathias.

In reviewing Mr. Mathias's edition of Crescimbeni's Commentaries on the History of Italian Poetry, we intimated that he was about to present to the public another compilation of the same kind, from Tiraboschi's unrivalled History of Italian Literature.—In this publication Mr. M. has surpassed our expectations as well by its speedy appearance, as by its execution.

Of Tiraboschi himself, or of his original performance, little need be said, as our readers cannot be uninformed that he was the most indefatigable and meritorious writer of the last generation in Italy, and that his excellent History of Italian Literature is one of the greatest works which appeared in the republic of letters during the latter half of the eighteenth century. With respect to arrangement, Mr. Mathias has adopted the plan of his original, modestly declaring himself to be rather a re-publisher than a compiler. The work is consequently divided into seven chapters: the first of these explains the common principles of Italian and Provençal poetry; the second relates the state and vicissitudes of the Provençal poetry from the year 1180 to 1300; the third developes the progress of Italian poetry during the same period; the fourth exhibits its history from 1300 to 1400; the fifth gives a similar account of the improvements which took place from 1400 to 1500; and the 6th and 7th are likewise respectively devoted to the description of the two subsequent periods—from 1500 to 1600, and from 1600 to 1700, the latter of which constituted the limits of Tiraboschi's general history.

The first volume of this edition opens with an elegant song which Mr. Mathias addresses to the ingenious Mr. Roscoe, who, like himself, has successfully cultivated the fields of Italian Literature: then follow a preface to the readers, and a detailed biographical notice of Tiraboschi, by the Abbé Ciocchi, one of his successors in the Ducal library of Modena. As we have given, in one of our preceding Numbers, a short notice of this extraordinary writer, we shall offer only a few observations on the other two pieces, which, being the exclusive production of the editor, claim from us a greater share of attention.

We before noticed with admiration, Mr. Mathias's extraordinary knowledge of the Italian language, and that admiration is rather encreased than diminished by his present performance. In his preface, of 14 pages, we have been able to detect only the following trifling blemishes. The indefinite article *di* might have, most properly and most elegantly, supplied the place of the compound genitive *d'uno*, in the first sentence, and have thus prevented the repetition of the same word without interval. In the following line, the words *alla campagna* would have been more properly placed after the verb *scelta*, and thus also have prevented the contiguity of two different modifications, of place and of time; the words *come io sono*, p. 19, v. 15, might have been suppressed without endangering the accuracy or perspicuity of the expression; the monosyllable *con*, p. 25, v. 2, most likely from an error of the press, has been mistaken for *col*; and, owing perhaps to the twofold signification of our indeterminate pronoun *any*, which has two different correspondents in Italian, one of these, *alcuno*, p. 27, v. 3, has been used instead of the other, *qualunque*. Mr. Mathias writes his favourite foreign language still more correctly and elegantly in verse than in prose; as in his affecting song to Mr. Roscoe, nothing more, in our opinion, can be objected to than some obscurity or equivocation in the 4th and 5th lines, included in a parenthesis; and that the 12th line, p. 8, contains some tautology.

In order, however, to enable our readers themselves to form an idea of the author's style, both in prose and poetry, we shall here insert a short paragraph from the preface, p. 23, and the concluding stanza of the song.

" E lasciando stare il genio amoroso, l'indole delicata, e le maniere molli e vezzose de' poeti seguaci d' Anacreonte; dove si posson trovare più rare e pellegrine bellezze, più sodi e magnifici ornamenti, più maestrevol arte, più mirabile disinvoltura ed intrecciamento di parole? dove più luminose locuzioni, più regolati impeti dell' agitata fantasia, più maestoso e misurato andamento, con tanti altri pregi e lumi, per gli quali non solamente imitati ma gagliardemente emulati si vedono i più illustri e rinomati greci?"

Canzon, se mai quell' onorata riva
Vedi del fiume a te non caro indarno,
Salutala nel nome in cui ti fidi;
Sei di straniera cetra ardito suono,
Ma pur d'amor sei dono;
E se negletta giaci e ignota all' Arno,
T' è forse assai che del Tamigi ai lidi
Alzasti *prima* i trionfali gridi.

Mr. Mathias has so well performed the task which he has undertaken, that we entertain no doubt but (to use the language of the stanza we have transcribed) his muse will visit the banks of that river of Tuscany so dear to him, and become naturalized in that justly celebrated Attica of modern Italy.—And we shall earnestly look forward to the publication of the other five articles of Italian poetry and criticism, which are advertised at the close of the last volume of the present edition. As, however, he very justly regrets, in his preface, that the late undertaking of some Italian booksellers, for republishing in London some of the chief historians of their country, did not meet with sufficient encouragement, we cannot help expressing our opinion that this object would be more worthy of his liberal patronage than any other he can possibly find in the extensive field of Italian Literature. The studious and informed would certainly be much indebted to him for rendering more accessible and familiar to them those eminent works which he justly calls the manual of statesmen, and which may certainly be deemed unrivalled and inimitable. F. D.

Mr. Editor,

I have seen with pleasure, in the 15th Number of your valuable miscellany, the review of *Topografia fisica della Campania*, by Mr. Breislack; and I agree with the writer of that article, that the work is the most comprehensive and accurate physical description ever given of that celebrated province. I have it, however, in my power to give some farther details on the subject, which will, I trust, be acceptable to your readers, and perhaps contribute to render the author better known among the naturalists of the age.

The work which originally bore the title of *Physical topography of Campania*, reappeared three years after, under an improved shape, in Paris. It was entitled—*Voyages physiques et lithologiques dans la Campanie, suivis d'une mémoire sur la Constitution physique de Rome; par Scipion Breislack, traduits du manuscrit Italien, et accompagnés de Notes, par le Général Pommereuil.* It consisted of two vols. 8vo. The author informs us in his preface, " that the work had been the result of his long residence at Naples." " Being obliged," says he, " to send the manuscript to Florence, it was there printed without my personal assistance, in 1798, under the title of Physical topography of Campania..... Not having at that time quitted Naples, I again visited the places I had described, and endeavoured to collect new articles of information. On my return to Rome, I endeavoured also to rectify my ideas on the physical constitution of her territory; and I remained more than ever convinced that the greatest part of her famous hillocks were the remnants of a sunken crater."..... " The calamities of my native country having compelled me to seek an asylum *on the land of liberty*, I thought it would be an agreeable thing to the French physicians were I to present them my work in their own language, corrected in several parts, according to the present state of the science, and enriched with a great number of additions."..... " This edition is also supplied with new maps and plates. The first of them represents Vesuvius in such a manner as to enable the reader to distinguish the ancient from the modern lavas, which are seen on its surface: the second is the physical map of Rome, never published before, and exhibiting the respective situation of her celebrated hillocks; and the third represents the plan, the interior, and the elevation of a machine which I caused to be erected in the *solfatara*, in order to obtain, by the spontaneous cooling of the vapours of that as yet unextinguished volcano, a sufficient quantity of water to support a fabric of alum established in its crater."

I beg you will insert this letter in an early Number, and I am, &c. F. D.

NOTICES.

A new Edition (the third) in two octavo volumes, has just appeared of Sir John Sinclair's History of the Public Revenue. Since the second edition, printed in 1790, the attention of the author has been almost exclusively directed to the carrying on that extensive and laborious publication, entitled, *The Statistical Account of Scotland*, and all the various enquiries and pursuits resulting from the establishment of the Board of Agriculture, and other measures connected with the improvement of the country; and though the History of the Revenue had been long out of print, the author was led, from the hurry of other important avocations, to postpone from time to time the publication of another edition. The first volume contains the History of the Revenue prior to the Revolution. In the second volume very considerable alterations have been made. The tables of the National Income, and the Expenditure, have been separated from the rest of the work. It is also proposed to add another volume in the course of the next Session.

Captain James Burney has published the first volume of his Chronological History of the Discoveries in the South Sea, Part the first, commencing with an account of the earliest discovery of that sea by Europeans, and terminating with the Voyage of Sir Francis Drake, in 1759.—(891 pages.) The volume is dedicated to Sir J. Banks, Bart. divided into twenty chapters with a short appendix. It contains five charts.

The celebrated statue of *Ceres*, brought from *Eleusis*, by Edward Clarke, Esq. has been recently sent from the

Custom-house, in order to be placed in the Public Library at Cambridge; and we understand that Mr. Flaxman has offered his services on the occasion.

Mr. Clarke, the same gentleman, has also lately drawn up a Memoir, now in the possession of Lord Hutchinson, which tends to prove that the large Sarcophagus now in the British Museum, originally formed the tomb of Alexander the Great, who was buried at Alexandria.

Mr. Arrowsmith has just published his large Chart of the West Indies, in four sheets, dedicated to Admiral Payne.—He is likewise preparing a new map of the Troad, from materials furnished by Mr. E. Clarke.

Sir Home Popham has printed for the use of his friends, since his return from the East Indies, a second edition of his valuable naval work, dedicated to Lord Spencer, entitled *Telegraphic Signals*, or *Marine Vocabulary*. 4to, 113 pages.

"This vocabulary was originally made to facilitate the conveyance of messages from the Romney off Copenhagen, to Admiral Dickson off Elsineur; its utility was in that instance so obvious, and so generally allowed by the Captains of the North Sea squadron, that Sir Home Popham conceived it might be brought into more extensive practice, and has already given copies to different officers, with the request, that they will point out any improvement, and send it to Lord Spencer, who has the Original for consideration how far it may be expedient to print it, and bring it forward for general use."

Sir Home experienced so many advantages from the use of these Signals, that on his return to England from the Red Sea, he prepared a second edition; and the favourable opinion which several officers of the squadron at Plymouth expressed of the utility of the first edition induced him to reprint it, with two more parts, of words and sentences.

The principle of Sir Home is to apply the numerical signal flags now in the service, to the purpose of conveying information, either by letters, words, or sentences, which are not provided for in the code of signals at present in use: which has been found of infinite use in facilitating the service.

By letters we have received from New Holland, dated Sydney Cove, July 20th, 1802, we are enabled to inform the public respecting the Investigator, Lieut. Flinders, employed on a Voyage of Discovery in the South Sea, and the Pacific.

Our Correspondent writes as follows:—"We sail to-morrow for Endeavour Straits, we shall be out at least a year, and I think it an even chance if we ever return or not. I have been up the Hawkesbury river, in the Lady Nelson, and I was equally astonished and delighted. The banks are in most parts covered with trees which are by far finer than any I have before seen in New Holland. From some of the higher hills, which are in some places nearly perpendicular, were some grand views of the blue mountains. In some parts large masses of rock hung over the river, which looked as if they would fall every moment upon our heads, as we passed under them. In short, they were such scenes as Salvator (Rosa) would have been delighted with."

Baclet Dalbe has edited at Paris the first number of a collection of landscapes under the title—*Ménales pittoresques et historiques des Paysagistes; Collection de gravures au trait et à aqua tinta d'après les meilleurs ouvrages, &c.* The first number contains two landscapes by *N. Poussin*, one of which (National Museum, No. 76.) represents Diogenes throwing away his water-jar, and the other, Polyphemus playing on the flute; two landscapes by *N. Berghem*; the first represents herds surrounded by cattle, (National Museum, No. 180.) and the second, herds, after a painting, which was formerly in the collection of Count *Choiseul*; lastly, two landscapes, by *P. Potter*, one of which (National Museum, No. 446.) represents cattle, and the other (National Museum, No. 448,) persons bathing. We cannot bestow much praise on the introductory part of this number, which treats beautiful and plain (naïf) landscapes, with a considerable confusion in the leading ideas of heroic, nor on the mechanical execution of the work.

The Lyceums continue to be organized in France with the utmost activity. The new Lyceum, established at Brussels, is to be opened during Bonaparte's stay in that city; for which purpose Fourcroy has already sent thither the necessary instructions. The lectures in the mineralogical schools lately established at *Pesay* and *Montiers*, in the department of *Mont-Blanc*, commenced the 4th of last April.

The lectures delivered this year in the *Atheneum*, (formerly Lyceum) at Paris, are as follow:—On experimental physics, by *Lefebre Gineau*; on chemistry, by *Fourcroy*; on natural history, by *Cuvier* and *Duméril*; on anatomy, by *Say*; on botany, by *Mirbel*; on technology, by *Hassenfratz*; on history, by *L'Isle de Sales*; on moral philosophy, by *Degerando*; on general philology, by *Sicard*, and on arithmetic and drawing, by *Legrand*. Admittance for gentlemen, 96 francs, and for ladies, 48 francs, including the use of the library.

At Coucoury in the vicinity of Saintes, in the department of the Lower Charente, a large number of gold medals have lately been found, which have no inscriptions, but impressions of a variety of figures, such as stars, horses, and heads of snakes. They are not large in circumference, but thick and concave on one side. The general opinion of those who have examined them, is that they are Celtic medals. Some are melted together in forms rather irregular, which seems to indicate, that they are the remains of a conflagration.

The Society *Felix Meritis* at Amsterdam has proposed the following prize-subjects for the present year:—1. The daughter of *Diburates* drawing on the wall the contour of her lover by the light of a lamp, after *Plin.* 12, 35. compared with *C. van Mander's* description of antique paintings; prize, a gold medal, 14 ducats in value;—2. A Netherland landscape, represented in winter, covered with snow, at moon-light; prize, a similar medal of the same value. The paintings, which remain the property of the artist, and the dimensions of which are to be 1½ to 2½ feet in breadth, and 1 to 2 feet in height, must be transmitted before the 1st of next August, to *H. Numan* at Amsterdam, Director and President of the Society.

MANNERS.

ALTHOUGH political considerations are foreign to the present article, it can be no departure from our plan to make some remarks on the probable effects of the minister's bugdet, since its contents evidently bear hard on those articles which are connected with the MANNERS and Customs of the fashionable world. The clamour of the public is generally loud, when a minister imposes fresh taxes on articles of *consumption*, but we trust it will be allowed he has acted more humanely and judiciously in laying his new duties on articles of *shew*. Horses, carriages, and men-servants, must undoubtedly be placed under this class, but we do not mean by this to take from their merit; since if we divide all articles into two classes, necessaries and luxuries, it will be found impossible to keep them separate for five minutes together: Such is the disposition of luxuries to run into necessaries, that we

question if a single member of the fashionable world can be found who does not consider as absolutely necessary all those appurtenances which *little people* (including authors) have the presumption to call mere luxuries, *i. e.* things which a man may do without. And if a person could be found who should hold such a barbarous opinion, only for the sake of argument, we question whether he ought not to incur all the penalties of the code of fashion, even to that most dreadful of punishments, expulsion, or transportation to Coventry.

The taxes upon articles of luxury, (for we must still retain the name, to prevent the mistakes of vulgar readers) are confessedly heavy, and some who are apt to be alarmed for the good of the nation, may perhaps suppose that they will amount to a prohibition, in which case the fashionable would will lose its brilliancy, and the minister his estimates. It will be said, that certain persons cannot really *afford* this addition of tax on their luxuries, and particularly on their equipages, and therefore that one must sell his horse, another lay up his carriage in ordinary, and a third dismiss his servants, or, to speak in the very best language, must be compelled to reduce his establishment.

All this would afford a very melancholy prospect; but we are happy to be able to assure our readers, that there is no foundation for such alarms, either from past experience, or future probabilities. And this opinion we may strengthen by a variety of considerations: In the first place, from the evidence of past experience, which informs us that no such reduction of establishments took place during the last war; and yet it will not be said that the taxes of that war were on the lowest possible scale, or that they did not very considerably affect many of those things which, be they necessaries or luxuries, we all look upon as *comforts*. Secondly, and what we are inclined principally to build our opinion upon, all those articles which common language terms luxuries, are become necessaries, indispensable to existence itself, and therefore whoever would lay these down, must lay down life itself, that *life* which is more particularly the object of these speculations, and which is termed *high life*, to distinguish it from the mere vegetation of those whose "breath is in their nostrils."

Now, ministers of state, who generally have some little knowledge of the world, act wisely in touching such articles as a man cannot do without. Little people may make a thousand shifts to evade duties, and deprive themselves of a thousand little indulgencies, to preserve the power of enjoying what they think indispensable, and to show their loyalty and patriotism by answering the calls of the parish collector. But there can be no such shifts and privations in genteel life. Whoever has once entered into that, has no retreat: It is the "bourn from which no traveller returns." No half-measures, no abridgements, no plans of economy are consistent with it. He that has once kept a suite of servants must ever keep a suite of servants; he that has once given dinners, and routs, and balls, must ever continue to give them; he that has a town mansion, and a magnificent villa, must ever have a town mansion and a magnificent villa; and he that keeps a carriage, must never lay it down. If we could suppose the contrary, what would be the inference? what would the public say? the public would say what we shall not presume to anticipate, and what no man of spirit would for a moment bear to be told.

But yet it will be alleged, that although all this may be true to a certain degree, there are no rules without exceptions, and certainly some persons will be obliged to retrench because they cannot *afford* to support their former *figure*. To this we might answer, if we chose to take advantage of so weak an argument, that exceptions are not prejudicial to general rules, and that if we once establish the rule, we may make our opponents a present of the exceptions, and wish them joy of all the good they will get by them. But this is not the only weak part of the argument. The word *afford* has been hauled in by mere violence, a word in general ill understood, and surely inapplicable in the present instance. It is supposed some persons may retrench because they cannot *afford*—afford what? Or what is it that a man of *ton* and spirit cannot afford, if he wants it? To what anarchy and confusion would many families of the first figure be reduced, if the doctrine of *affording* was once to be propagated? Let us consider this a little.

We can easily suppose that the objectors on this occasion are "well-meaning people." We do not yield them much in yielding them that character, which no man of spirit is very desirous of retaining. But whatever their *meaning*, they are lamentably *ignorant*; they are theorists, who plod and calculate in closets and country houses: they add cypher to cypher, and club pounds, shillings and pence together until they make what they call a sum total, and then they apply certain cabalistic words, as *debtor* and *creditor*, and imagine they have made the point clear to a demonstration, proving that there ought to be a sort of mysterious connexion between income and expenditure, a kind of wedding between expences and abilities, although all the world knows that no two things can in general be farther apart, or quarrel oftener when they meet. Accordingly, when they bring this precious statement into *the world*, they find it a mere fallacy; it tumbles to pieces at the first touch, and then they learn, to their great astonishment, that there is a considerable distance betwixt purchase and payment, and that there is such a thing as *credit*, which never entered into their calculations. We might enlarge on this topic, but for brevity's sake, we shall refer the reader, who desires greater satisfaction, to the 21st Number of this Journal, where he will find an account of the people who "live nobody knows how."

Yet still it remains to be added, that this cant of *affording*, among its other absurdities, and impracticabilities, would infallibly interfere with the staple commodity of St. George's and St. James's parishes, which some call gaming and some gambling; and there never was perhaps a period in the history of Manners where such interference would be more impertinent, or more destructive. It is always dangerous to meddle with the staple of a country, but particularly so when we see so many thousands of industrious persons who apply to this calling day and

night, and endeavour to get an honest penny by it, without being burthensome to their relations; and when we consider that the trade is carried on now to a much greater extent than in former days, when people worked only six days in the week. In consequence of the increased demand for the article, among the *fair dealers*, the seventh day has been added, by which we are clear gainers of nearly two months in each year. It is true that this addition was not made without considerable murmuring: and in some great houses it is become necessary to divert the parties by allowing a little singing and fiddling at intervals:* and we allow, also, that it has not yet become universal. But still the increase of business is very considerable, and would be grievously checked, if the doctrine, or rather heresy of *affording*, were to be introduced by the propagandists of economy, and the methodists of prudence and calculation.

There are other employments also which would be seriously affected by the same means, especially keeping up a figure, which, we candidly think, would, under such circumstances, be impossible: and how a figure, once kept up, is to be laid down, we believe no man that has not been a *coroner* for some years can tell; and even he delivers his opinion with so much reserve that we can never know what he means merely by what he says. There is also a very celebrated *Marshal* and a well-known *Warden*, who have acquired some experience in the matter, but their notions, we fear, are too *confined*, and they are too attentive to *rules*, ever to have any weight with the parties to whom we allude.

We have enlarged a little on the subject before us, chiefly on account of the minister, whose hands it is every Englishman's duty to strengthen at the present crisis, and to convince him that when he taxes luxuries, he may as well call them by their proper names. We have had the honour, within these few days, of partaking of sundry family-consultations, in which retrenchment has been the order of the day; but we can assure Mr. Addington, that that order has always been one way or other got rid of. Some, for example, were extremely willing to dismiss two or three servants, but the important question was, how could this be done consistently with the figure one must make? Some were decidedly of opinion that the carriage might be laid down, but it was immediately asked, who could lay down a carriage that had once set it up? Some gently hinted that the house in the country was not absolutely necessary, that the garden produced nothing that might not be purchased cheaper in the markets, and that the expence of going and coming to the family and servants, was great—but it was affirmed, and with some degree of warmth and indignation, that no person could *breathe* in town. Some imagined that if the usual journey to the seaside were omitted, it might tend to bring matters round, but it was instantly replied that to omit that which none of one's friends omitted, would look particular, and every person was convinced that to *look particular*, was the most hideous species of ugliness. And lastly, when greater objects were found impracticable, the horses of the young gentlemen were ordered to Tattersall's, but this shared the fate of the other motions, it being considered as truly horrible, not to say impossible, for them to walk on foot. Upon the whole, therefore, as far as we have been able to collect opinions, the Chancellor of the Exchequer has very little to fear from retrenchment, since it has been decreed that every thing which contributes to *show* is *substantial*, and every thing *superfluous* is *necessary*. R. S.

* Whoever has had the honour of an invitation to Lady ——'s Sunday Concerts, will understand this method of drowning the cries of expiring parsees.

POLITICS.

Being now at war with France, and seeing no reasonable prospect of being delivered from it, but by the issue of a contest, which shall either humble one of the parties, or tire out both, we are called upon to consider the means of maintaining the contest, and of turning its issue in our favour. We are called upon likewise to estimate, as far as an estimate can be formed, the chances of good or of bad fortune which await our exertions.

The war must be considered as consisting of two parts, that by land, and that by sea. With regard to the latter, it may be assumed, we believe, as a conceded point, that we shall be irresistible. Let us then consider what our superiority in this respect can confer upon us. It can restore to us the Cape of Good Hope; it secures to us Malta; it can obtain for us again the island of Minorca. Whatever may be the importance of these in other respects, they are the grandest naval stations in the world; and exalt that maritime ascendency of ours, which is the object of so much envy and detraction, to a height infinitely greater than it ever attained before. These stations render the sovereignty of the ocean which we already possess, ten times more valuable, as by their advantageous position they subject the sea-borne commerce of almost the whole world entirely to our mercy. It can never be the interest of Great Britain to use this power in a tyrannical, oppressive manner; because it is not the interest of Great Britain that the commerce of her neighbours should be small, but that it should be great; and because the extension of her own trade with any nation necessarily implies the extension of the trade of that nation too. But she may take this advantage of that power,—to compel those nations, whose great interests are dependent upon her will, to abstain from conventions or transactions injurious to her rights, or alarming to her security: and she will then have it in her power to dictate, instead of negotiating.

This is what our maritime superiority can do for us on this side of the Atlantic. Let us next see what it can achieve on the other side. The French fleet, and by necessary consequence the French army in the West Indies, may be considered as already at our disposal. Together with these, the whole of the possessions there belonging to France are lost to that country. It is in our power to expel from the same quarter the Spaniards, or whatever other nation we please, and to make choice of what spots we prefer for our

own possession. Whether any spots, beside what we already own, it would be for our own interest to possess, is another question. There can be no doubt that France and Spain would be severely mortified to lose what they at present enjoy; and that such a change would confer upon us the whole riches of the West Indian commerce.

But an objection is urged; That the disappointing of the French views with regard to St. Domingo, delivers up that island to the Blacks; that the dominion of the Blacks in any one of these islands, especially in one of so much importance, must be followed by their revolt in all the other, and the consequent ruin of the colonies. It is then asked, if we be prepared, upon driving the French out of St. Domingo, to follow up that enterprise by the subjugation of the blacks, at the expence of twenty millions of money, and as many thousand lives? If the force of this objection be allowed, it will follow, that not only ought the French navy and army in the West Indies to be spared, but the French ought to be encouraged to send out more forces, and even to be assisted by our army and navy, should it prove necessary. If West India possessions be essential to the greatness of this country, and if the triumph of the blacks in the French possessions, must necessarily be followed by the loss of ours, unless we incur so great an expence of men and money, it was wrong to go to war with France on almost any provocation, and to clog her operations in the West Indies, till the important settlement of her colonies there was completely accomplished. We are persuaded however, that to the gross understandings of this country, it will appear rather an over refined policy to refuse taking possession of the French fleet in the West Indies, when it is in our power: And we must confess ourselves to be too much of the same character with our countrymen to dissuade them from the measure. We would even go a step farther, and advise them to compel the French troops yet remaining in that Island to a quick surrender, by cutting off the supplies which they receive from America, and which they cannot do without. It by no means appears to us, that by wise precautions, and by such salutary changes as true policy ought long ago to have dictated, our colonies might not be preserved and improved, in spite of the empire of the Blacks in St. Domingo. Is it perfectly certain, besides, that any efforts of the French would now deliver the West Indies from the establishment of an empire of the Blacks? By many persons well qualified from local and military knowledge to judge, we know it is deemed impossible to subdue the Blacks in St. Domingo.

If the situation of the Blacks in the West Indies do indeed render the possession of our colonies there insecure, why not anticipate the blow? There is one splendid enterprise which could hardly fail of success, which would strike terror into our enemies, and which would compensate to us manyfold the islands in the Western Archipelago.

We are told in the French papers, that the Spaniards, on the present alarming occasion, comfort themselves, in regard to their American possessions, with the idea that our force is too much weakened by its dispersion in our East and West India territories, and too much is wanted at home to secure the center of the empire, to allow us to think of sparing a portion sufficient for the overthrow of their wide extended dominion in the other hemisphere. The opinion is well founded. But if the weakening of our enemy, by destroying his power in the West Indies, must lose us our islands, the force which is necessary to protect them is sufficient, is at least not far from sufficient, for the capture of Mexico and Peru. Why not at once detach it from the one service, and apply it to the other? Who is ignorant of the extreme weakness of the Spanish Government in America? No one so much as doubts that it might be subdued with ease by a handful of troops, belonging to any of the more hardy, and enterprising nations of Europe. But how much beyond all calculation valuable are the magnificent possessions which they hold there? Who has not been dazzled with the splendid pictures of the riches of Mexico and Peru? We speak not of the riches of the bowels of the earth, the precious metals, with the unexampled profusion of which these countries astonished the whole world; but of the riches and charms of their climate and soil, adapted to the culture of every thing exquisite and valuable, which every part of the globe produces.

How infinitely do these grand possessions, extending from the 40° of north latitude to the 50° of south, overbalance the two petty islands of Jamaica and Trinidad, lying in the unwholesome gulph of Mexico! If it be urged that the British capital fixed in these islands is great, and that individuals would suffer by their evacuation; will it not be easy to grant ample compensation by new plantations on the continent? A great part of the moveable property belonging to the proprietors of these islands might be removed along with them; and it is known that the culture of the West Indies requires but little capital to be sunk in the soil. Almost the whole property of individuals therefore might be removed, except the land, and that would be exchanged for much better.

This project is regarded by ourselves as sufficiently wild. But ten years ago the project which we have seen the French attempt, and to so great a degree accomplish, with regard to Egypt, would have been considered as still wilder. This seems to be the age of bold attempts. And if we leave Mexico and Peru alone, we have very little doubt that some are now born, who will live to see them conquered by some other nation, most probably by France herself. This is the only quarter of the world, where, in her favourite scheme of colonies, she can hope to rival the grandeur of our East India possessions. This, of all the possessions to which she can aspire, enables her the most effectually to shake, perhaps to destroy our power in the Eastern hemisphere; and ships might be fitted out in secret in the distant harbours of the western coast of America, and armies prepared, which might cross the Pacific ocean, and be landed in Bengal before we had notice of their departure. We wonder that an attempt to obtain at least a part of this coast, with a view to disturb our tranquillity in India, was not made by the French, rather than their attempt with regard to Egypt. That the possession of Mexico, for example, by the French, would be a far more

valuable possession to them in itself, and give them more power over the East Indies than Egypt, we suppose will be doubted by no man who considers fully the subject. And we cannot help believing that Spain was so completely at the mercy of France, when the expedition to Egypt was planned, that an arrangement, apparently amicable, might have been made to deliver up Mexico to that power. It is far from being improbable that Louisiana was held at the peace of Amiens, with a view to repair this oversight. By this possession France was placed in direct contact with Mexico, and could not long be deprived of a pretence to extend her dominion over it.

To Great Britain the possession of Mexico would be valuable in a peculiar and extraordinary manner. The voyage from Great Britain to Porto Bello is as quick and safe as that to Jamaica. Every thing which Jamaica produces might be raised in Mexico, to greater advantage than in Jamaica; and many valuable things are found in Mexico, which Jamaica does not afford. Then the extent of Mexico is unbounded; but the quantity of good land which is to be found in Jamaica is not very great. Mexico, besides, is much more healthy than any of the islands. On all these accounts Mexico, to a nation in so extraordinary a degree commercial, and industrious as we are, so completely too masters of the ocean, would prove a source of incalculable riches; and for every British vessel that now crosses the Atlantic we might then behold ten. In short, on a continent of such extent, and so favoured in soil and climate, within so inconsiderable a distance of the mother country, the imagination can set no bounds to its anticipations of prosperity.

But the most important property of this possession, in respect to Great Britain, would be its opening a new and easier road to our great empire in the East Indies. It would serve as a sort of middle station between that splendid dominion and home, by which their intercourse would be extremely facilitated, and that great possession be rendered much more valuable. The voyage across the Pacific is so steady and safe, that the isthmus of Panama might be rendered a great depot of Chinese and East India goods. Many articles certainly might at no great expence be transported across the isthmus, and distributed to the American states, or even sent to Europe. At any rate an immense trade might be carried on between Mexico and India, of their respective produce, which would advance the prosperity of both to the greatest height; and of the prospesity of both we could not fail to reap the greatest advantages.

Besides, the force which we are obliged to maintain for the protection of the West India Islands, is lost for any other purpose. But the force which we might keep in Mexico, would be no less valuable for the defence of the East Indies. A fleet might be maintained on the western coast of the isthmus, which might be ready at all times to dart across the Pacific, and take a part in warding off any danger from their country men in the east. And in the same manner might the force in the east contribute to the security of the Mexican empire. They would in this manner form the bulwarks of one another; no less than they would prove the great promoters of each other's industry, wealth, and greatness. Such are the enterprises which seem to be in our power in the maritime department of the war.

If thus mighty be the possible effects of our power on the water, we may be satisfied if we be perfectly competent to our own defence on the other element, the operations on which can neither be so rapid, so extensive, nor so important. France has the folly to aspire to supremacy on both, in spite of the solemn advice of her most sound, as well as her most enterprising statesmen. We may quote a passage from Mirabeau, written at a time when it was far from his intention to diminish the opinion of French power. "France ought to make her choice either for the sea, or for the land. By aiming to play a great part on both these elements, she enervates, she ruins herself, and has the ascendancy neither on the one nor the other. To what would this career lead her? To reap the bitter fruits of an universal distrust; to fall into the last convulsions of debility, by wishing to force the nature of things, which does not admit that one power should wield both sceptres, which requires the waste of immense and inexhaustible capital, to create and to maintain a maritime power, which peculiarly strikes with malediction and sterility all projects which tend to substitute an artificial force for that which it creates." (*Monarchie Prussienne. liv. 7, p. 314.*)

That we have men enough on the British islands to defend them, will not be disputed: the enquiry is to find ways and means to bring their powers into action, in the way calculated to prevent, in the greatest degree, detriment from befalling the country. The part of those ways and means which consists of money the minister has in part communicated his schemes for providing. This part of the deliberative business of war always receives a very ample consideration in this country. We say not that it receives a greater share than it ought. But we do say, that the remaining parts in general receive a great deal less than they ought. The ministers of Great Britain seem commonly to think that when they have got the house of commons to vote the supplies, their business is done; the war is now set upon its legs, and it may walk itself. Such however is not the nature of war. Much and profound deliberation is required, to systematize an extensive plan of warfare, after provision is made for its expence; deliberation, which if not exercised, and with much skill and wisdom exercised, your expence is but thrown away.

We will reserve our opinions with regard to the money deliberations till another occasion. But among the other ways and means for carrying on the war with safety and honour, there is one of peculiar moment which we would recommend as the first, and that is the emancipation of the Irish catholics. This we confidently propose as an equivalent for many millions to be raised by loans. Did unanimity and patriotism reign in Ireland as it ought to do, what occasion for the extraordinary proportion of the British forces which are kept there for its defence? On the first of May there were no less than 23 foot regiments of the line stationed in Ireland, while 28 was the whole

number in England. Of what importance to the nation to be enabled to employ a great part of that force on other services, and to trust the defence of Ireland to the bravery and good will of its inhabitants! How would this lighten the task of ministers, in providing a force for the protection of Britain itself! And how considerable a relief to the expence of the nation, at a time when it is to be called upon to endure so much, to be saved the annual support of even ten regiments!

The state of the Irish nation, we presume, is pretty generally known. By a great and salutary act, which removed all distinction between the two countries, which removed all the uneasiness necessarily occasioned by the partiality of the laws toward the governing country, a cordial coalition of feelings, purposes, and interests was ready to take place. The little causes of party distinctions and party contentions, which disturbed the internal tranquillity of Ireland, being removed, peace and quietness, with all their attendant virtues, were naturally to be looked for. One cause only of discordance remained. The people were divided in their religious sentiments. This however being a concern not between man and man, but between man and his Maker, could not, it should seem, affect injuriously social peace. But unfortunately the government interfered, and from the whole class of adherents to a certain system of opinions withdrew a portion of political privileges. These adherents, thus punished for doing what they conceived to be their duty, for following the dictates of their conscience, a strange cause in their opinion of punishment, naturally felt a strong resentment against that government which treated them with this seeming injustice. The distinction too thus placed between one class of the citizens and another was odious and grating; and sowed the seeds of discord between them. This has retarded the progress of improvement in Ireland; has weakened the natural strength of the country; and instead of being favourable to the interests of religion and morality in it, has been a great destroyer of both. This has given peculiar efficacy to the different causes of political discontent and the spirit of insurrection, which now has little besides to keep it alive.

It has been generally understood that an actual promise of emancipation was the price paid to the catholics for their concurrence with the scheme of union. At any rate it is absolutely certain that this was understood by them to be one of the new regulations which was to be adopted on that great occasion. Their hopes were raised high. The value they set upon the privileges from which they are debarred, as is the natural tendency of the human mind, is greatly above their intrinsic worth; though even that cannot be denied to be considerable. The disappointment of these ardent hopes; the refusal of what they conceive to be, and which is, an act of justice, the appearance of being duped to serve a particular purpose, the apprehension of having been betrayed, has filled their minds with the keenest resentment, with feelings of indignation and disdain against the government which in their opinion has used them dishonourably, meanly, cruelly, unwisely. The higher, on the other hand, they value those privileges from which they are debarred, the more strongly had the government an opportunity of binding them to it, of laying upon them a highly valued obligation, and of attracting their gratitude. That their gratitude, their zealous attachment, and every sentiment of good subjects toward a good government, would have been the immediate consequence of this liberal treatment, is the confident assertion of all those who have the best opportunity of knowing. It is certain that it is not yet too late to obtain these great advantages. And at the present awful moment, when the minister tells us that we are to be called upon for sacrifices, such as we never even dreamed of before, is the mighty advantage to be derived from the unanimity of the people to be neglected? Is no effort for this paramount resource to be made? Are we to be desired to take the bread out of our mouths to defend the nation from its desperate enemies, while the government refuses its assistance to make faithful friends of those enemies whom we have in our own bosom?

Is it a secret what designs the French have long entertained with regard to Ireland, and what hopes they build upon the co-operation of the Catholics? Bonaparte despairs, if he is any thing but a madman, of conquering this country; he despairs, or he is wretchedly informed indeed, of any success at all comparable to the risk of attempting to land on this island. But he has better founded hopes with regard to Ireland, if there is any probability of a considerable number of the inhabitants joining him. These facilitate his descent, facilitate his marches, but above all assist him in subsisting his army. Bonaparte does not expect to make a permanent conquest even of Ireland. He knows he will be driven out of it; but he knows at the same time, that if he can once obtain a footing in it, it will cost us an immense expence of men, and of money to remove him out of it; and this is the object at which he aims. Here only it is that we are vulnerable. Here only it is that he can force us to fight at any greater expence than we chuse.

And is it we ourselves that furnish this advantage to our inveterate foe? Is it in our power to make this part of the empire equally invulnerable with every other part of it, and shall we not commence our operations with this important measure, with this "cheap defence of the nation?" Let Mr. Addington oppose this first bulwark to the designs of Bonaparte, and then come upon us for what more that opposition may cost. What reason shall he advance for not doing so?—that insuperable opposition stands in the way? If that be the case, if he be in reality unable to do his duty to the nation, let him deliver up the seals, which he cannot usefully employ, into the King's hand, and come to parliament, to whom he is responsible, and like a man tell to them the reason. It will then be for the joint representative wisdom of the nation to deliberate what remedy is to be applied.

There is one other point concerning the plan of defence respecting which we are desirous of delivering our opinion. That is, whether the protection of the nation should be entrusted in a great degree to occasional soldiers, such as a large body of militia and volunteers, or as much as possible to troops of the line. We are decidedly of opinion that it ought at all

times to be entrusted to the latter almost entirely. We are willing to grant the militia of this country to be as good troops as any one shall desire to represent them. We know that new levied troops, when they are inspired with enthusiasm for the cause which leads them on, have been known to perform the greatest martial exploits. The trained bands of the city of London gave the victory to the parliament over the regular forces of Charles First; and the raw conscripts and national guards of France drove before them the best disciplined troops in Europe. Still it is true that men imperfectly disciplined are not to be depended upon like those thoroughly so. One thing of no little consequence in this country is, they require much better commanders, it is much more difficult to lead them; they must be conducted with infinitely more skill to be rendered useful, to be prevented from becoming highly pernicious. It is found accordingly in the record of military affairs, that in by far the greater number of instances, a militia has been easily subdued by a standing army. The finest militia, probably, that the world ever saw, was that of the republics of ancient Greece; yet after a struggle, long indeed, and violent, it was obliged to give way to the standing army of Philip of Macedon. With hardly any struggle did that army prevail over the effeminate and ill-exercised militia of the great Persian empire. The army which Hannibal carried into Italy, from the time it had been in service, was formed to the exact discipline of a standing army. The Romans for some time previous to that period had not been engaged in any war of great consequence, and their military discipline, it is generally said, was a good deal relaxed. At the battles of Terbia, Thrasymenus, and Cannæ, it was the Roman militia opposed to the standing army of Carthage. And this circumstance, it is probable, contributed more than any other to determine the fate of those battles. The Roman militia, by continuing in the field, became at last a standing army, while that of Hannibal every day diminished. When Scipio passed over into Africa, he carried with him this standing army, and encountered the militia of Carthage. Many causes contributed, in the latter ages of the Roman empire, to relax the discipline of the armies. They became at last not only an ill-disciplined, but a corrupt and effeminate militia, unable to stand before the more hardy and warlike militia of the barbarous nations. The soldiers of a standing army, without having ever seen an enemy, have been often found to possess all the bravery and steadiness of veteran troops. Witness the Russian army, which, after twenty years profound peace, marched in 1750 into Poland, against the Prussians, at that time accounted the hardiest, and most experienced veterans in Europe; witness too the exploits of the English forces in the Spanish war of 1739, though England probably possessed not a soldier at that time who had ever seen an enemy.

The militia of England, beside being worse disciplined, is not so useful as the standing army. It can only be employed at home, without obtaining its consent. This is always an inconvenience, as some pains and trouble must be employed. Besides it is not perfectly clear that it is consistent with the original intention of the militia in this country, to ask its consent to go out of it, or to accept it, if it should be offered. It is rather [illegible] according to the original intention of the militia, it never ought to be sent out of the country on any account, and the minister violates the spirit and substance of the laws who sends it.

In addition to all these objections we say that the force provided by the militia is much more expensive that an equal force depending upon a standing army. For the militia the country is put to the expence of a new levy every time it is called out. The expence of training it anew every time it is called out is a matter of some consequence. But the great objection to it is this, that it withdraws a great part of your most valuable labourers from their employment, and the whole worth of their valuable labour is deducted from the revenue of the community. A standing army, on the contrary, is composed of those who either unfortunately have not been taught to labour, or who have but little inclination to it; whose military occupation therefore is less detrimental. If to evade this inconvenience you allow substitutes to any amount, your militia is rendered a mercenary army, but worse disciplined, less useful, and more expensive than any other. The chief argument for a militia, the keeping alive of the military spirit in the great body of the people, is thus entirely defeated. But the militia never was on a footing in this country, nor perhaps in any country in modern Europe, which could have any sensible effect on the military spirit. Do we ever suppose that a man is at all the bolder for having served three years in the militia? Never; but we in general suppose, with good reason, that he is a much greater rascal than before, more intemperate, more idle, more impious, and more subject to dishonesty. The militia spoils the morals of the people, without improving their military spirit. The truth is, that the nature of society in modern Europe is such, as of itself to create and to maintain the military spirit; and there is hardly any nation or any individual who wants it. Besides, it is not by a few years reluctantly wearing a uniform, and handling a musket, that a military spirit could be communicated, if it were deficient; a change for this purpose ought to be introduced into the education of the young. The education of modern Europe was originally planned for breeding churchmen only, and in most places too few deviations by far, have been made from the original institutions. This is eminently the case with regard to England; and this is one of the reasons that she has produced so few great officers. In fact, we can conceive no possible reason for having recourse to a militia, but because it is the most tyrannical mode of raising a force; it is a levy by compulsion, by conscription, and infinitely more oppressive to the people than any other which can be used.

As for the partiality to a militia on account of a supposed advantage in favour of liberty, it is one of those prejudices which a very little reflection ought to destroy. The state of society in Great Britain is such that it is not from the army, though six times more powerful than it is, that any danger to liberty is to be

apprehended. Besides, the army of Great Britain would be just as averse to become an instrument of tyranny in the hands of the Sovereign as the militia. And the Sovereign of Great Britain, whose army has a legal existence only by the vote of Parliament from year to year, and cannot be maintained but by the money raised by their votes, who, besides, has not a strong place in the whole kingdom, is utterly unable to attempt any project against the general sense of his people.

We are glad to understand that the ministers have declared their resolution to confine within very narrow limits the volunteer service. While insurrections were to be dreaded, the volunteer corps, particularly those formed of the better sort of people, were of great importance. It was one of the most simple, effectual, and safe modes of coercion which could be imposed upon a misguided people. But to permit corps of such persons to be formed to fight against the French, would be one of the most impolitic measures that ever a thoughtless government encouraged. We have the highest value for the lower orders of our fellow citizens. Taken collectively they are the most valuable of all the orders. Taken individually, the life of every one of them is worth more than the lives of two of the same order in any other nation of Europe. But the life of one of the superior orders, the life of a man of finished education, and having the acquirements of a gentleman, is still more valuable; is worth more to his country than the lives of three of the uninstructed tribes of the citizens. Nothing is often suspended by the loss of one of them, but the operations of his own hands. The others are often at the head of important business; the well-being, not of one, but of many families, is often connected with theirs. It is the most prodigal, and ruinous of all species of waste, to throw away the lives of such men as these, against the dregs of the French populace; and no wise government will ever permit it. Such men as these ill deserve their situation in life, if they cannot more usefully serve their country in some other capacity than that of a common soldier. Much better propose to them to turn out as cooks and suttlers to the army. Volunteers of every description must always be in a great measure perfectly useless against a foreign enemy; and in the happy state of peace and unanimity which we enjoy internally, can only be an incumbrance and an expence to the country. The raising of them, therefore, ought to be almost completely discouraged.

Mr. Editor,

In your last Number a curious mistake occurs in the political department, which, however, it must be confessed, is written with great ability and comprehension—the passage I allude to is this: "The Roman empire under Justinian was the greatest ever seen." If the writer of that article means in point of territory, the following sarcastic letter of the Gepidæ to Justinian is its best comment:—"So extensive, O Cesar, are your dominions; so numerous are your cities; that you are continually seeking for nations to whom either in peace or war, you may relinquish these useless possessions. The Gepidæ are your brave and faithful allies; and if they have anticipated your gifts, they have shewn a just confidence in your bounty."

If he alludes to its military establishment his position is equally erroneous, as it consisted only of 150,000 men, whereas Rome had once 645,000 in regular pay. I am Sir, your's sincerely,

June 11. Herulus.

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PHYSICS.

1. *On the Alloys of Gold.*

THE gold coin of Britain, is composed of 22 parts of gold, and 2 parts of alloy; or it contains $\frac{1}{12}$ of other metals. Gold of this purity is said in this country to be *standard gold*. Though the same quantity of alloy had been constantly used ever since the first guineas were coined in Charles the Second's time, an opinion had gone abroad that the gold coin of the present reign was less pure than the older guineas, and that it was considerably below the standard. In the Dutch mint, our guineas were estimated at 10 grains worse, and in the French mint, at 15 grains worse than standard gold. But when the matter was examined by Messrs. Garbetts in 1782, precisely the reverse was found to be the case.

The loss which the British gold coin had sustained by wear within certain periods, became so apparent as to attract the attention of government. Accordingly, a committee of the privy-council was appointed in 179-, to take into consideration the state of the coins of the kingdom. This committee being desirous to know whether the waste had been occasioned by any defect in the quality of the standard gold, or in the figure or impression of the coins, requested Mr. Cavendish and Mr Hatchett to make the requisite experiments to ascertain the points in question, supplying them for that purpose with sufficient quantities of gold.

The great value of this metal had hitherto prevented chemists from making the experiments necessary to ascertain the nature of the various compounds which gold makes with other metals. It was even unknown whether pure gold, or gold alloyed with other metals, suffers the most by wear under the various circumstances in which coin is placed. Though the determination of this question was of great importance both to political economy and to science, it does not appear to have been noticed by any European government, till the enlightened members of the above-mentioned committee proposed the enquiry, and furnished the requisite means for making the experiments.

The chemical experiments were all performed by Mr. Hatchett. Mr. Cavendish contrived the apparatus for ascertaining the comparative wear of coin, which was executed by Mr. Cuthbertson. We shall lose no time in making our readers acquainted with the results obtained by these important experiments. At present we shall confine ourselves to the alloys of gold which formed the first part of the investigation. They are of great importance, not only with respect to the wear of coin, but also with respect to the science of chemistry, because they remove several prejudices which had been handed down from the older chemists, and point out many curious circumstances which had not been suspected.

Mr. Hatchett united 13 metals with gold, and ascertained the properties of the alloys. Now, as the amalgam of gold is sufficiently known, we are thus in possession of the compound which gold makes with all the metals except the eight last discovered ones, which are still too scarce or too refractory to be an object of much consequence.

1. When arsenic is thrown into melted gold, the greatest part of it is volatilized by the heat, and very little remains in combination with the metal. Thus, when 453 grains of arsenic were thrown into 5307 grains of gold, the whole was volatilized except six grains. The alloy of course contained nearly 1 part of arsenic to 1000 of gold. It was of the colour of gold and brittle; yet it bent to some measure before it broke.

Arsenic combines readily with gold, when the vapour of it is made to surround a plate of gold kept red hot. Into a six inch crucible an ounce of arsenic was put, and an inverted crucible of the same size, having a plate of gold suspended in it was fitted, by grinding upon the lower. They were then luted and placed in an open fire, so as to be both of a full red heat. In this state they were kept about 15 minutes, and then allowed to cool. The gold plate was reduced in thickness very much, but as evenly as if it had been planed, and its edges were blunted; but it was still perfectly pure. The arsenic had combined with its surface, and formed a very fusible alloy, which dropt off as it formed, and was found in the lower crucible melted into an ingot. It was extremely brittle, and of a grey colour internally. From another experiment it appears that this alloy was composed of about 1 part of arsenic to 240 parts of gold.

Arsenic cannot easily be separated from gold by heat; even after the alloy had been kept twice in fusion, for an hour, it continued brittle.

2. When antimony is thrown into melted gold, a portion of it is also volatilized, though much less than of the arsenic. When 453 grains of antimony were thrown into 5307 grains of melted gold (23 carats $3\frac{1}{2}$ grains fine) 93 grains were volatilized, for the ingot weighed only 5667 grains. Of course it was composed of about 1 part of antimony to 5 of gold. It was of a dull pale colour, not very unlike tutenague: it was exceedingly brittle in the fracture, appeared of an ash colour, with fine close grain, somewhat resembling that of porcelain.

When the proportion of antimony was diminished, the brittleness and peculiar fracture still continued. Even when the antimony constituted only $\frac{1}{57}$th part of the whole, the alloy was completely brittle, and still shewed a close grain, though the metallic lustre began to appear. This alloy was mixed with its own weight of gold, made standard by copper. In this new alloy the proportion of antimony amounted to $\frac{1}{114}$th part of the whole. Yet the gold continued still remarkably brittle.

When gold is melted in contact with the vapour of antimony, it attracts it, and becomes brittle. From these experiments it appears, that an extremely minute portion of antimony destroys the ductility of gold.

3. When zinc is thrown into melted gold, it takes fire, and a considerable portion of it is dissipated. Thus when 453 grains of zinc were thrown into 5307 grains of melted gold, no less than 5dwts. 21 grains were dissipated, for the ingot weighed only 5609 grains. This alloy was therefore composed of about 1 part of zinc to 17 of gold. It was of a pale greenish yellow like brass, and totally destitute of ductility. When gold and zinc are kept melted in open vessels near one another, part of the zinc combines with the gold and destroys its ductility. About two parts of brass destroy the ductility of 52 parts of gold.

4. About 1 part of cobalt was added to 14 parts of melted gold, and the whole being well mixed and melted, was poured into a dry cupel. The external colour of this alloy was a dull yellow. It was very brittle; its fracture was of a pale yellow, with an earthy grain. The alloy was brittle when the proportion of cobalt did not exceed $\frac{1}{65}$, but when it amounted only to $\frac{1}{130}$, the gold began to be ductile.

5. About 1 part of nickel was melted with 14 parts of gold, and the melted mass poured into a cupel. The alloy was of the colour of fine brass, and immediately broke under the hammer, with a coarse grained earthy fracture. When the nickel amounted to $\frac{1}{28}$th part of the mass, the alloy still continued brittle; but when it only amounted to $\frac{1}{65}$th of the gold, the alloy was only brittle in a slight degree. Gold alloyed with $\frac{1}{130}$th of nickel was perfectly ductile.

6. Mr. Hatchett attempted to form an alloy of gold and manganese, by melting gold whose surface was covered with the black oxide of manganese; but no change was produced on the gold by that method. Olive oil was then repeatedly mixed and burnt with the black oxide of manganese, in order to bring it nearer to the metallic state. It was then put into a crucible lined with charcoal; an ounce of fine gold was placed in the middle of the oxide, and the crucible closed with a charcoal stopper. A cover was firmly luted over all. After being exposed to a strong heat for an hour and a half, the crucible was removed from the fire, and when cold was broken. The manganese was still in powder, but from black had become dark green. The button of gold was pale, it soon broke under the hammer, and shewed a spongy coarse grained fracture. On repeating this experiment with a still greater heat, the button of gold was found of a pale yellowish gray colour, with a considerable lustre, almost equal to that of polished steel. It was in some measure ductile, though extremely hard: for when placed on an anvil, and struck with a heavy hammer, it was flattened a little before it could be broken. The fracture was coarse, very spongy, and of a reddish grey colour, and many cavities in the interior of the mass were filled with dark green coloured manganese.

From the experiments of Mr. Bingley, it appears that in different parts of this alloy the proportion of manganese varies. In one portion it amounted to $\frac{1}{8}$, in another to $\frac{1}{3}$ of the gold.

It was not altered by exposure to the air, nor did acids act upon it. When exposed to a great heat in contact of air, it lost its metallic lustre, and was covered with a dark brown oxide. By this process the alloy increased in weight, between $\frac{1}{11}$th and $\frac{1}{5}$th part.

The manganese may be removed by cupellation, by means of lead. As soon as the metals are in fusion the manganese swims on the surface of the lead, and is gradually vitrified, tinging the cupel of a dark blackish brown colour. The manganese may be separated from gold still more completely, by the mixture of silver, and solution in nitric acid; or the process known by the technical name of *Separation* by nitric acid.

When the alloy is kept in fusion, the whole of the manganese is oxidized, and remains on the surface, and may be afterwards separated by means of the hammer.

7. When gold is alloyed by fusion with $\frac{1}{14}$th of its weight of bismuth, an alloy is formed, externally of a pale greenish yellow colour, like bad brass. It breaks under the hammer, and shews a fine grained earthy fracture. The alloy continues perfectly brittle, even when the proportion of bismuth is reduced to $\frac{1}{170}$th of the gold, and there is reason to believe that a still smaller quantity of bismuth is capable of destroying the ductility of gold. When bismuth is kept melted near gold infusion, a portion of the vapour unites with the gold and destroys its ductility. Bismuth then is equally injurious to gold with antimony.

8. When 1 part of lead was united with about 12 parts of gold by fusion, the alloy had the colour of gold, but was rather more pale. It was as brittle as glass. The grain was very fine, of a pale brown colour, was destitute of the metallic lustre, and had a porcellaneous appearance. Even when the proportion of lead is diminished to $\frac{1}{170}$ of the gold, the brittleness still continues.

When lead is kept melted near gold in fusion, a portion of it combines and destroys the ductility of the gold.

9. When 1 part of tin is alloyed with 12 of gold, the alloy has some ductility, for it may be passed several times between the rollers; but then it breaks longitudinally in several pieces. The colour externally was a pale whitish yellow: the grain of the fracture was very fine, and of a pale yellowish grey colour.

When gold is alloyed with copper, and tin is added in the proportion of 8 grains to the ounce, the alloy remains sufficiently ductile to be rolled to the proper thinness, and stamped in the usual manner.

Thus it appears from the experiments of Mr. Hatchett, that the experiments of Mr. Alchorne, published in 1784, on this subject, are confirmed. Mr. Tillet had afterwards repeated these experiments, and had observed that this alloy, when heated to what he calls a cherry-red annealing heat, becomes brittle; a circumstance which he supposes had been overlooked by Mr. Alchorne. Mr. Bingley, of the mint, made a new set of experiments, from which it appears, that the observations both of Alchorne and Tillet are accurate, and not the least incompatible. The alloy may be

sufficiently annealed by being kept in a low red heat, or a red just visible in day-light, which corresponds to 5° of Wedgewood's pyrometer. This temperature restores its ductility, and renders it capable of being wrought into any form. At the cherry-red heat, mentioned by Tillet, which corresponds with 10° Wedgewood, blisters form on the surface of the bar, it curls up and warps, and at last, when the whole of the tin may be supposed in fusion, the continuity is destroyed.

Thus the opinion of the extremely minute portion of tin which destroy the ductility of gold is refuted. Mr. Hatchett supposes that the mistake originated from the experiments on the subject having been made with tin, containing some bismuth, lead, antimony or zinc, a very minute portion of the vapour of these metals, especially the three first, being sufficient to destroy the ductility of gold.

10. It has been universally believed, that iron destroys the ductility of gold, but the experiments of Mr. Hatchett have shewn that this opinion likewise is erroneous.

When 1 part of iron is mixed with 12 parts of gold, and exposed to a strong heat, the mixture melts, and forms an alloy of a pale yellowish grey colour, approaching to a dull white. It is very ductile, and easily reduced by rollers from $\frac{1}{4}$ inch, to the thickness of a guinea; and may be then cut and stamped without difficulty. Nor did the properties of the alloy differ when cast iron and cast steel were substituted for pure iron.

Emery has been supposed a frequent cause of the brittleness of gold; but Mr. Hatchett has shewn that it is not capable of being united with that metal.

11. When 1 part of purified platinum was melted with 14 parts of gold, the alloy formed had a yellowish white colour like tarnished silver, and was extremely ductile. We have already, in a former Number of the Literary Journal, published the experiments of Klaproth on this alloy.

12. Gold alloyed with $\frac{1}{12}$ of pure copper forms an alloy of a deep yellow colour inclining to red, and perfectly ductile. No change was produced by exposing it to a still greater heat, nor by casting it in different moulds.

When gold was alloyed with the same proportion of Swedish granular copper, it became slightly brittle, and when Swedish dollar copper was substituted, the alloy was as brittle as glass. The same proportion of British granular copper rendered the gold slightly brittle; but with the purest kind manufactured in Britain, the gold remained very ductile. Hence we see that different specimens of copper, though similar in appearance, produce different effects upon gold. Mr. Hatchett ascertained that this difference is owing to the impurity of the copper, which very frequently contains a small proportion of lead or antimony, or of both. Now a quantity of these metals, not exceeding $\frac{1}{1000}$th, is capable, we have seen, of destroying the ductility of gold.

13. The properties of the alloy of silver and gold are so well known, as to require no particular description. Its ductility approaches the nearest to that of pure gold, and its specific gravity differs but little from that which according to calculation would result from the relative proportions of the two metals.

Such are the general properties of the alloys of gold. The following table exhibits the effect of all the metals tried on the ductility of gold. Each metal being arranged in the order in which it affects gold.

1 Bismuth	These are nearly equal in effect.	8 Nickel
2 Lead		9 Tin
3 Antimony		10 Iron
4 Arsenic		11 Platinum
5 Zinc		12 Copper
6 Cobalt		13 Silver
7 Manganese		

When the alloys are kept melted, a considerable portion of some of the metals is volatilized, while others sustain no loss. The following table exhibits the loss of weight sustained by exposing the alloys of gold and other metals, in the following proportions, to a heat strong enough to keep them melted for an hour.

Metals.	Weight.	Loss after fusion.
1 Gold 23 carats 3½ gr. fine	2880 grains.	0 grains.
2 Gold	2654	
Fine silver.....	226	0 .....
3 Gold	2654	
Copper.....	226	0 .....
4 Gold	2654	
Tin.....	226	0 .....
5 Gold	2654	
Lead	226	3 .....
6 Gold	2654	
Fine iron	226	12 .....
7 Gold	2654	
Bismuth.....	226	18 .....
8 Gold	2654	
Antimony.....	226	12 .....
9 Gold	2654	
Zinc	226	24 .....
10 Gold	2654	
Arsenic	226	228 .....

NOTICES.

ROYAL SOCIETY, *June* 16.—A Paper, communicated by Dr. Herschell, was read, which stated the relative appearance, positions, and occultation of the double Stars for these last 25 years.

M. Roucel, who edited some time ago a small yet instructive treatise on scarce plants, which are natives of Belgium, has lately published in 2 vols. 8vo, a very valuable work, entitled, "*Flore du Nord de la France*," which contains a very interesting and satisfactory account of the plants of the late provinces of Flanders and Brabant.

Professor Rouss has published at Goettingen, the third volume of his "*Repertorium commentationum a Societa-*

tum litterariis editarum," containing all memoirs of that description, which relate to the several branches of mineralogy and chemistry.

CHEMISTRY.—*A new Composition for indelible black, and red Ink, by* Mr. Close.*—It is of considerable importance to possess an ink which can neither be altered by time nor chemical agents. This subject therefore appeared to me at least sufficiently interesting to undertake a variety of experiments, the result of which is contained in the following receipts:—

Black Ink.—Dissolve 25 parts of gum copal in 200 parts of lavender oil, give this mixture a gentle heat, and mix with it from 2½ to 3 parts of lampblack, braying it on porphiry. This ink must be kept in well corked bottles, and should it be too thick, thinned with an additional quantity of lavender oil, or with oil of turpentine or alcohol.

Red Ink.—For making red ink take 120 parts of lavender oil, 27 parts of gum copal, and 60 parts of cinnabar, and make the mixture as above.

These two mixtures are unchangeable.

After having written with these inks, if you evaporate the lavender oil by means of a gentle heat, there remains nothing on the paper but a coat or layer of paint, covered with copal, on which neither water, alcohol nor alkaline substances make the least impression. A manuscript, made with these inks, can undergo the whole process of bleaching, to which printed papers are subjected, without the least danger of suffering any alteration.

* Von Crells' Chemishe Annalen, 1802, p. 200, and Van Mons' Journal de Chimie, year xi. p. 193.

LITERATURE.

1. *Some Account of Benjamin, Count Rumford.*

(Concluded from our last.)

The conversation became close and animated. Colonel Thompson, invited, in consequence, to dine with the prince, found there a number of French officers against whom he had fought in America. The conversation turned on the events of that war. The Colonel sent for his portfolio, which contained exact plans of all the principal actions, of the strong places, of the sieges, and an excellent collection of maps; every one recognized the places where events interesting to himself had happened. The conversation lasted a great while, and they parted, promising to see one another again. The prince was an enthusiast in his profession, and passionately fond of instruction. He invited the Colonel next day. They resumed the conversation of the evening with the same ardour; and when the traveller at last took his leave the prince engaged him to pass through Munich, and gave him a letter of recommendation to his uncle the Elector of Bavaria.

It is worth while here to observe the train of circumstances apparently without connection. It is a military rencounter, and a military conversation, which open to Count Rumford that noble and important career of beneficence, which forms at present his chief glory, and the great happiness of his life.

The season was far advanced, and he was in haste to arrive in Vienna. He intended to stop at Munich two or three days at most. He remained fifteen, and quitted, not without regret, that city where the testimonies of the favour of the sovereign, and the partialities of the different classes of society, had been lavished upon him with that cordial frankness, which so eminently distinguishes the Bavarian character. At Vienna, in the same manner, he met with the most flattering reception, and was presented at court, and in the first companies. He spent there a part of the winter; and, learning that the war against the Turks would not take place, he yielded to the attraction of the recollections of Munich, and passing through Venice, where he stopt some weeks, and through the Tyrol, he returned to that residence toward the end of the winter of 1784.

He now received from the Elector a positive invitation to enter into his service, and instead of returning to Vienna, he set out for London with the intention of soliciting permission from the King to accept the offers of the Elector Palatine. Not only was that favour granted him, but the King joined to it an honourable distinction, by creating him a knight. He accordingly returned to Bavaria Sir Benjamin Thompson; and was on his arrival appointed Colonel of the horse, and general aid-de-camp to the sovereign who wanted to secure his services.

Sir Benjamin employed the four first years of his abode at Munich in acquiring the political and statistical knowledge necessary for realizing the plans which his philanthropy suggested to him for improving the condition of the lower orders. He did not neglect in the mean time his favourite studies; and it was in 1786, in a journey to Manheim, that he made his first experiments on heat. Political and literary honours poured in upon him during that interval. In 1785 he was made chamberlain of the Elector, and admitted a member of the academies of science of Munich and Manheim. In 1786 he received from the king of Poland the order of St. Stanislaus; in 1787 he made a journey in Prussia, during which he was elected a member of the academy of Berlin. In 1788 he was appointed Major-General of cavalry and privy counsellor of state. He was placed at the head of the war department, and particularly charged with the execution of the plans which he had proposed for improving the state of the Bavarian army.

At last, the following year (1789) witnessed the accomplishment of the numerous projects meditated during those which preceded. The house of industry of Manheim was established; the islands of Mulhau near Manheim, which till that time had been nothing but a pestilential morass, useless for culture, and pernicious to the health of the inhabitants of the city, were joined together, surrounded by a mound and ditch, and transformed into a fertile garden, consecrated to the industry of the garrison. The fine establishment of the military academy of Munich was founded; a scheme of military police was formed to deliver the country from the numerous gangs of vagabonds, robbers, and beggars, who infested it; schools of industry, belonging to every regiment, were established, to employ the wives and children of the soldiers; a veterinary school was instituted, and a stud of horses provided for improving the breed of the country.

At the beginning of the year 1790 the house of industry of Munich, that fine establishment, which the Count himself has described at length in his essays, was formed, for bettering the condition of the poor;

and mendicity was completely abolished: nor has it again made its appearance in Bavaria, since that memorable epoch. The beautiful English garden of Munich was begun, and military gardens established in all the garrisons. The sovereign expressed his obligation for these numerous services, by conferring on Sir Benjamin the rank of Lieutenant-General of his armies, and giving him a regiment of artillery.

In 1791 he was created a Count of the Holy Roman Empire, and honoured with the order of the White Eagle. He employed that year and the following in completing his projects, in removing the obstacles by which attempts were made to interrupt their progress; in a word, since the truth should be spoken, in resisting the attacks of enemies who envied his success. This species of labour, and the anxiety of mind inseparable from it, impaired his health to such a degree, that his physicians declared that his life was in danger, unless he retired, for some time, from business, and had recourse to a change of climate. He obtained permission from the Elector to take a journey into Italy; and before leaving him communicated, in a detailed account, the principal results of his four years administration, compared with the four years which had preceded his entrance into office.

The journey lasted 16 months. Count Rumford, after having travelled over all Italy, and a part of Switzerland, returned to Bavaria in the month of August 1794. He had been attacked with a dangerous illness in Naples, and his slow recovery did not permit him to resume, on his return, the transaction of the business of his department, over which he contented himself with exercising a general superintendance. He laboured in his closet; and it was at this time that he prepared the first five of the essays which he has published.

In the month of September 1795 he returned to England, after an absence of more than eleven years. The principal object of his journey was to publish his essays, and to direct the attention of the English nation toward the plans of public and domestic œconomy which he had conceived, and realized in Germany. One of the most respectable men in England, Lord Pelham, now one of the ministers, was then secretary of state in Ireland. The Count complied with his invitation in the spring of 1796, and took that occasion of visiting that interesting country. He introduced, at Dublin, several important improvements into the hospitals and houses of industry, and left there models of a number of useful mechanical inventions. They were the first objects which struck my attention when I visited the society of Dublin.

Every testimony of honour and gratitude was lavished upon him in this country. The Royal Academy of Ireland, the Society for the Encouragement of Arts and Manufactures, both elected him an honorary member; and after having left the country, he received a letter of thanks from the grand jury of the county of Dublin, an official letter from the Lord Mayor of the city, and one from the Lord Lieutenant of Ireland. These pieces, all of which I have seen, are all filled with the most flattering expressions of esteem and of gratitude.

On his return to London he directed the alterations, which had been adopted, on his recommendation, in the Foundling-hospital, and he presented to the Board of Agriculture several machines, as models for imitation.

The philanthropic activity which distinguished this epoch of his life manifests itself in every form. It was at this time he placed in the English and American funds, two sums of £1000 sterling each, to establish a premium to be given every two years to the author of the most useful discovery, made respectively in Europe or America, on light, or heat. The premium is a gold medal worth 1500 francs. It must be adjudged in Europe by the Royal Society of London, and in America by the Academy of Sciences of America.

Nothing seemed sufficient to withdraw him from these tranquil and important occupations, when the events of war called upon him to display his military talents for the service of his adopted country. General Morgau, having crossed the Rhine, and defeated several bodies of soldiers, who disputed with him its passage, advanced by quick marches to Bavaria. Count Rumford on receiving this intelligence immediately set out to join the Elector. His arrival at Munich was eight days previous to the epoch when the sovereign was called upon to quit his residence, and to take refuge in Saxony. Rumford remained in Munich with instructions from the Elector to wait events, and to act according to the exigency of circumstances; they were not long in requiring his interference. After the battle of Freidberg, the Austrians, repulsed by the French, fell back upon Munich: the gates of the city were shut against them. They marched round it, passed the Inn, by the bridge, and posted themselves on the other side of the river, on a height which commanded the bridge and the town. There they erected batteries, and firmly waited for the French. In this situation, some inconsiderate transactions which happened in Munich, were interpreted by the Austrian general as an insult pointed against himself, and he demanded an explanation of them from the council of regency, threatening to order the town to be fired upon, if a single Frenchman entered the city. At this critical moment the Count made use of the eventual orders of the Elector, to take the command in chief of the Bavarian forces. His firmness and presence of mind awed both parties; neither the French nor the Austrians entered Munich; and that city escaped all the dangers with which it had been threatened.

On the return of the Elector, the Count was placed at the head of the department of the general police in Bavaria. The services which he rendered in that capacity, though less brilliant than military exploits, have been neither less valuable, nor less conspicuous. But the excessive labour to which his zeal and activity betrayed him, the opposition which he often experienced in the exercise of his office, again affected his health to such a degree, as threatened his life. The Elector, impressed with esteem and gratitude towards him, wished not to allow him to sink under a labour too severe for him, and desired to find the means of procuring him the repose which he required, without altogether depriving himself of his

services: he appointed him his Envoy Extraordinary and Minister Plenipotentiary at the Court of London. But the rules of England not permitting a subject of the King to be accredited as a foreign minister, the Count has not exercised that office, and has lived since his return to England in 1798 as a private individual.

Meanwhile it was reported in America that he had quitted Bavaria for ever, and the government of the United States addressed to him, through the medium of the American Ambassador at London, a formal and official invitation to return to his native country, where an honourable establishment was destined for him. The offer was accompanied with the most flattering assurances of consideration and confidence. He replied, declaring at the same time his profound gratitude for such a mark of esteem, "That engagements, rendered sacred and inviolable by great obligations, did not permit him to dispose of himself in such a manner as to be able to accept of the offer which was made to him." There remains not, surely, in that reciprocal language, the least mark of enmity; and the Historical Society of Massachusets, on electing Count Rumford a member, communicated to him, by their president, about the same time, their unanimous desire of seeing him return to his own country, and take up his residence among them. His answer, which is to be found in the American papers of that time, was very much admired.

Toward the autumn of 1800, Count Rumford went to Scotland. The magistrates of Edinburgh paid him a visit of ceremony; gave a public dinner on his account, and to these marks of distinction added the freedom of the city, conceived in terms the most flattering. They consulted him on the means of improving the existing charitable Institutions, and on the measures proper for abolishing mendicity. The work was undertaken without loss of time, and that great enterprize was finished in a few months with complete success. In Edinburgh beggars are no longer to be seen, and all the poor, fit for work, are become industrious. The Royal Society of Edinburgh, and the College of Physicians, elected him at the same time, respectively, an honorary member, and the University bestowed upon him the degree of Doctor of Laws. The diploma was inserted in the Edinburgh newspapers; it is written in the most elegant Latin, and recounts shortly and truly the obligations of humanity toward my illustrious friend.

He employed himself during his stay in that city in superintending the execution, in the great establishment of Heriot's hospital, of the improvements which he has invented with regard to the employment of fuel in the preparation of food. I myself have heard the high approbation with which the cook of this hospital speaks of these improvements. I have before me a more respectable testimony, and in approbation of which the grounds are better expressed, on the same subject. It is a letter, lately received from Mr. Jackson, one of the chief managers of the hospital, to the author of these improvements.

The following is a copy of it:—

Edinburgh, July 21, 1801.

"My dear Sir,

"In order to afford you the most exact information with regard to the result of the reparations made in Heriot's hospital, I have thought it better to let a considerable time elapse, that their utility might be the more confirmed. I have now the satisfaction of informing you that an experience of six months proves with certainty that the same operations are executed with a sixth part only of the fuel which was employed before. The saving, however, will be only two thirds, because the price of charred coal (coak) is nearly double that of the fuel which was used before. I assure you too with much pleasure that the victuals are much better dressed than before, and with one half less trouble to the servants. In a word, I cannot express to you the convenience, the neatness, and the saving which distinguish the improvements introduced into the hospital under your direction. The kitchen, the washing room, and the drying room, are so admirably contrived, that in my humble opinion it would be impossible to improve them.

The Lord Provost and the magistrates join me in acknowledgments, &c.

JAMES JACKSON."

These managers determined to shew their gratitude by a testimony more durable than a mere letter. They sent Count Rumford a silver box, with a very flattering inscription; and having on one of its sides a representation, in relief of gold of the principal front of the building to the improvement of which he had so eminently contributed, and which, besides, is a fine piece of architecture.

In fine, he crowned the work by the superb establishment of the Royal Institution, of which he was the chief promoter. This is one of the most remarkable monuments of his patriotism and ingenious activity. That project advances rapidly towards its perfection, and receives from him very assiduous care.

How happy soever he might be, and actually is in England, he is not finally settled there. The same prince who had foreseen in 1784 of what utility to his country such a man as Count Rumford might be, has declared very expressly his intention of recalling him. With difficulty could he resist the invitation of a sovereign who wishes to advance the happiness of his country by attaching to himself the man whom he regards as the fittest to aid him in the reformation which he meditates. I suppose, therefore, that next spring at the latest, he will quit his peaceful retreat to resume for a time the high functions in which he had rendered to Bavaria such eminent services.*

It would hardly be supposed that the species of life which he has led could have left him either the inclination or the time to write; still less that of making delicate physical experiments. The following, however, are the works which he has published at different periods; sufficient to procure reputation as a man of science, if that species of glory had flattered him. I shall follow the order of time:

1. Experiments on Gun-Powder, with a method of

* The Count actually returned to Bavaria about the time foretold by Pictet, and has no doubt had an eminent share in effecting those important reforms in Bavaria, which we have had frequent occasion to notice in this Journal, and of which the effects must soon be visible in that country.

determining the velocity of projectiles, and the force of gun-powder. (Phil. Trans. 1781, P. 1.)

2. Experiments on Heat; by which it is proved to pass more slowly through the Torricellian vacuum, than through the air. (Phil. Trans. 1786, P. 2.)

3. Experiments on the production of dephlogisticated air (oxygen gas) by different substances, exposed under water to the action of light. (Phil. Trans. 1787, P. 1.)

4. Experiments on the relative and absolute quantities of moisture absorbed by different substances employed as garments. (Phil. Trans. 1787, P. 2.)

5. Experiments on the communication of heat in air. (Phil. Trans. 1792, P. 1.) This memoir procured to the author the gold medal of the Royal Society.

6. The description of a photometer, and experiments on the relative quantity of light furnished by different combustible substances, and their relative prices. (Phil. Trans. 1795, p. 1.)

7. Experiments on coloured shades, and the optical illusions produced by the contrast of colours actually present. (Ib. 1st part.)

8. Experiments on the force of gun-powder, by which it is proved that this force is at least 50,000 times greater than the mean weight of the atmosphere, and that it is probable that the force of gun-powder depends chiefly on the elasticity of the vapour of water. (Ib. P. 2.)

9. A letter to Sir Joseph Banks, President of the Royal Society, offering a capital of £1000 sterling destined for a fund to furnish a premium every two years to the author of the most useful discovery made in Europe with regard to light or heat. (Phil. Trans. 1796.)

10. Inquiries into the cause of heat excited by friction. (Phil. Trans. 1799, P. 2.)

Besides these memoirs, scattered in the philosophical Transactions, and which he proposes at some period to unite into one work, he has published two volumes of essays physical and economical. They have been translated into French, German, and Italian. He is now employed on a continuation, which will form a third volume.*

* This has since appeared.

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2. *Preston's Argonautics of Apollonius Rhodius.*

Concluded from p. 730.

The notes are placed in a separate volume, and not at the foot of the page, contrary to the author's own opinion, for in the preface he says:

"Had I consulted my own judgment, I should have subjoined the notes incidental to my translation, at the bottom of each page, as I went along. It was the old practice; and I have a great respect for old practices; they are generally reasonable, and founded in convenience. By subjoining the notes, where notes are necessary, at the bottom of the page, much trouble is saved to the reader; and the danger of much misapprehension avoided by the writer. However, the reigning taste of the present day, which seems to consider books, rather as things of ornament and use, as matters designed to please the eyes, rather than to inform the understanding, has thought fit to consult the beauty of the page, at the expence of many more important considerations; and, with this view, has consigned the notes to the end of the volume, or to a separate volume. This practice is now so generally established, that it would appear an ungracious affectation of singularity, were I to contend for a disposition generally exploded." Preface, p. xxxiii—iv.

Now of this general *explosion* we are by no means so certain, as we are, that when notes of any great length are inserted at the bottom of the page so as to reduce the text to a single line at the top, it is hardly possible to form any opinion of the general merit of the work. And if the verses are numbered, and the notes, though detached, refer to the number, the eye of the reader will not be drawn off from the work itself to read remarks which he does not want: but if he should want elucidation he will easily seek it in the note. As Mr. Preston has not referred his notes to the number of the verse, he has adopted a mode which he thinks wrong, omitting the circumstance that induces others to think it right.

Having said this of their situation, we must speak with applause of the notes themselves. The various fables of the Grecian mythology, scattered through the poem of Apollonius, are not at once familiar even to the learned reader: and even such a reader will be obliged to Mr. Preston for the pains he has taken in collecting from the mass of commentators and scholiasts illustrations of these fables, and for the judgment he has shewn in selection and abridgement.

The third volume contains translations of part of Apollodorus and Orpheus, and essays on the life of Apollonius, on the Argonautic expedition, on the manners of the heroic ages, on the poetic character of Apollonius, a comparison of Apollonius and Virgil, on the geography of Apollonius, and on the gardens of the Hesperides, &c.

The essay on the expedition contains some judicious remarks on the hypothesis of Mr. Bryant, to which was first sacrificed the truth of the story of the Argonauts, and finding afterwards that the *tale of Troy* stood in his way, Mr. Bryant destroyed that also. We certainly do not believe all the idle legends that *Graecia mendax* blended with her early history, any more than we believe that St. Jago fought on horseback with the Spaniards against the Mexicans, but we do think it highly probable that the expedition of the Argonauts and the siege of Troy had their foundation in truth, as we have no doubt that Mexico was conquered by the Spaniards.

In the comparison of Apollonius and Virgil, Mr. Preston has not fallen into the usual error of translators in being too partial to his archetype. Virgil was not a happy copier of the Greek writers. His inferiority to Homer, except in detached passages and similes, is universally allowed, except by the arrogant Scaliger. And the *Pius Aeneas* and his amorous widow by no means excite the same interest as the young and gallant Jason, and the passionate Medea. We do not mean however, with Mr. Pinkerton,* to depreciate entirely the prince of Latin poets: His chief design in his poem was to compliment Augustus Cæsar and the Romans, and when either or both of these subjects are prophetically introduced, it is done

* See Heron's Letters of Literature.

in a strain of poetry that has not been equalled in any other poem.

In this essay Mr. Preston notices the advantage that Apollonius, Virgil, and our Milton have taken by introducing proper names. The advantage to Milton and all English poets of introducing Greek and Roman names is sufficiently obvious from the superior harmony of these languages. But as ancient names are all derived from ancient words, or barbarous names Grecized or Latinized, they have not the same advantage over common words, for though Prior says,

——— 'to make the numbers good,
'Let generous Sylvius speak for honest Wood,'

we do not see that in Homer Μηνιν ἀειδε, Θεα, has any inferiority in point of cadence to Πηληϊαδεω Αχιλῆος: or that any conglomeration of proper names could have produced a better effect than is to be found in these lines of Virgil:

Ipse ava solans ægrum testudine amorem
Te dulcis conjux, te solo in litore secum
Te veniente die te decedente canebat.

Mr. Preston makes a very reasonable apology for the want of typographical elegance in this work, viz. the expence. We must conclude our remarks by again saying, that from many parts in the work it is evident he might have made the whole much better; and that if he will give a fair revisal to it, correct mistakes, retrench exuberances, and consult some person on the interest and perspicuity of the work, who has never read the original or looked at a note, he may make it as good a translation of an ancient poet as any in our language.

3. *Rhymes in Virgil.*

Mr. Editor,

Mr. Upton, in his Observations on Shakspeare, remarks, speaking of rhyme, "that these chiming terminations were so industriously avoided by Virgil, "that in his whole poem it is difficult to find one." It is by no means contended that rhyme can be any thing but a defect in Latin verse; and still less, that Virgil's verse is not on the whole superior to that of any other Roman poet; notwithstanding the frequent occurrence of this defect, which, so far from being difficult to be found in his works, are more frequent than in any of, perhaps I may say all, the poems of ancient Greece and Rome.

The following are exactly the monkish rhyme Hexameter:

'Cornua velatarum obvertimus antennarum.' Æ. iii. 549.
'Ora citatorum dextra detorsit equorum.' Æ. xii. 373.
'Descendam, magnorum haud unquam indignus avorum." Æ. xii. 649.
'Tum Bitian ardentem oculis animisque frementem.' Æ. ix. 703.
'Limus ut hic durescit, & hæc ut cera liquescit.' Ecl. viii. 80.
'Eternum telorum et virginitatis amorem.' Æ. xi. 583.
'Trajicit.—I, verbis virtutem illude superbis.' Æ. ix. 634.

The following may be called rhyme couplets:—

——— 'Et mihi jam multi crudele canebant,
'Artificis scelus, et taciti ventura videbant. Æ. ii. 124,5.
'Haud aliter terras inter, cœlumque volabat,
'Litus arenosum Libyæ ventosque secabat." Æ. iv. 256,7.
'Dixerat: Ille Jovis monitis immota tenebat
'Lumina, et obnixus curam sub corde premebat.' Æ. iv. 331,2.
'Ipse Quirinali lituo parvâque sedebat
'Succinctus trabeâ, lævaque ancile gerebat. Æ. vii. 187,8.
'Et Sacranæ acies et picti scuta Labici:
'Qui saltus, Tiberine, tuos, sacrumque Numici.' Æ. vii. 796,7.
'His amor unus erat, pariterque in bella ruebant:
'Tunc quoque communi portam statione tenebant.' Æ. ix. 182,3.
'Præcipitant, omnis campis diffugit arator,
'Omnis et Agricola, et tutâ latet arce viator.' Æ. x. 804,5.

Besides these examples, which may be called systematic rhymes, there are very many instances of words rhyming in the same verse, though not exactly at the Hemistich, as in the first examples: such as

——'*Lento* ducunt *argento*.' Æ. vii. 634.
——'*Nostrorum* audire laborum.' Æ. i. 377.
'*Defendentum* armis aditus inque arma *ruentum*.' Æ. xi. 886.

This shews that those who have a particular hypothesis to defend, should be careful in the facts they produce to support it; and that we may say with Prior, altering one word,

Critics before they write should read.

It is observable that in all these examples there is not one from the Georgics, his most correct work. Only one from the Eclogues, and of the others, by much the greatest number are from the last six books of the Æneid, which has been always supposed not to have received the last polish of Virgil; and of which therefore the best part may be probably the most incorrect.

I recollect but one instance of a rhymed couplet in Horace.

Non satis est pulchra esse poemata dulcia sunto
Et quocunque volent animum auditoris agunto.
Ars. Poet. 100.

P——.

4. *A Water Spout in the Hippolytus of Euripides, under the figure of a monstrous Serpent, or Chinese Dragon.*

A water-spout collects downwards, and appears to have its insertion in the clouds. It is a hollow cylinder open at bottom with a curled tail, from ten feet to forty broad; it is capable of dismasting a vessel though it pass but partially over it, throwing the ship first on one side, then on the other. It very often assumes a fantastic figure with arms, feet, and tail, sometimes like a serpent of a sky-blue colour, sometimes of a horned animal breathing fire, and bellowing as it breaks. At Quintana in the province of Burgos, in June 11, 1800, a water-spout did an infinite deal of mischief before it was dispersed by a strong north wind, as appears from the Journal of Madrid of the 7th of July. There is a fine piece of imagery in the Hippolytus of Euripides, where a monster called Taurus Epidaurius is brought down from the heavens, and made to hover over the shore, in order to frighten the horses of Hippolytus. This phenomenon is the more remarkable, because it shows the talent of the poet for observing the works and operations of nature, and turning them to his own use, by making a fine piece of poetical machinery

out of a natural appearance, which for its terror and obscurity became a proper subject for the marvellous. The words of the poet are, 'When we came to a lonely plain out of the straight road to Argos and Epidaurus, the shore of the sea opened upon us, and we heard a dreadful sound like thunder issuing out of the earth. The horses of the chariot threw their heads into the air, and erected their ears; we ourselves were frightened like children, wondering whence the sound could come, when turning towards the sea, we saw an enormous wave fixed in the heavens, Κῦμ' οὐρανῷ στηρίζον, (so large as to obstruct our view of the shore of Sciron, the Isthmus, and the rock of Æsculapius) swell to an immense size, froth, and roar; and coming near the spot where the horses stood, throw up a fierce and terrible monster, a roaring bull, larger and more tremendous than the eye had ever beheld. The horses ran away with fear and precipitation, &c. &c. v. 1197. Hippol. Euripides. The phrase of δρακων ἑλικτὸς is applied by Sophocles and Strabo to Achelous. See Motte's Abridg. Phil. Trans. v. 11, p. 210-15.—Taylor Concord. v. 11, p. 1610. Strabo, p. 458.

S. W.

NOTICES.

At the ANTIQUARIAN SOCIETY, on Thursday last, some musical hunting Notes of 1585 were explained thus:—

To call the company.
For the hounds, on finding.
For the stag roused.
For the fox unkennelled.
For the buck at bay.

At the same time were exhibited some Roman Antiquities in silver, bas and high relief, found in England.

Col. Mitford, elder brother to the Lord Chancellor of Ireland, and author of the History of Greece, has now in the Press a new Edition, improved and enlarged, of his Essay on the Harmony of Language, first published in the year 1774.

Miss Seward, we understand, has written a Life of the late Dr. Darwin; its publication may be expected soon.

Mr. V. Sándor, a learned Hungarian nobleman, has published under the title *Sokféle*, an Hungarian miscellany of anecdotes and observations, relative to the literature, manners and culture of Hungary. Speaking of *Sylvester's* ancient Latin version of the New Testament, he relates, that he saw a copy of that translation, to which a Roman Catholic priest had added the following marginal note:—"*Perversus interpres* (Sylvester was of the Lutheran profession) *in uno nomine et nebulo maximus uno cum suo domino et patrono Nadasdi. Deus retribuat vobis pro vestris meritis hic et in futuro seculo rotas et ignem perpetuum.*" Adam Kuller, Imperial Royal Librarian, wrote under this note—"*Modestia vestra sit nota omnibus.*"

Count John Potocki has published at Petersburgh, "*Histoire primitive des Peuples de la Russie, avec une exposition complette de toutes les notions locales, naturelles et traditionelles, nécessaires à l'intelligence du* IVe. *livre d'Herodote.*"—This farrago of etymological derivations and visions, which, according to the dedication to Alexander I. is the reults of twenty years' researches and travels, is doubtless to be classed among the literary curiosities of the nineteenth century, not only because no more than one hundred copies have been printed, but also because it is written in the manner of the sixteenth century, of which we conceived Parsons' Remains of Japhet would have been the last specimen.

MANNERS.

To the EDITOR of the LITERARY JOURNAL.

SIR,

I BELIEVE it will not be disputed that the charms of London are irresistible; and it is not less certain that the present is the season when the inhabitants of the country are impelled by inevitable necessity to pass some time in the metropolis. The same necessity is alike urgent on all, but the motives may perhaps appear with some shades of difference. Some come to London in the months of May and June, because they have never been there before; and others, who have once had that happiness, wish to see it again. Some come up for the necessary purposes of cloathing, which, they imagine, cannot be procured in a remote part of the kingdom; and others to purchase various articles which, although manufactured in the country, are not fit for sale or consumption until they have passed through the formalities of a London shop. To what secret process it is owing, I know not, but it is certain that the manufactures of Manchester, Norwich, Sheffield, Birmingham, &c. receive some wonderful improvement at the hands of the smirking dealers in Cheapside and Fleet-street, or of the more janty and polite shopmen of Tavistock and Bond streets. Nay I have been assured that English lace, in the form of veils, cloaks, &c. has, upon arriving in the city of Paris, instantly become French, and in that character has been sold to our fair countrywomen who lately visited that metropolis to pay their *devoirs* to the Consular Court.—But this is a digression.

Another set of country folks who come to London, at this period, and by far the most numerous, are they whose object is to *see sights*. Now, sir, this seeing of sights implies a great deal more than a superficial reader may at first imagine, and it is indeed the procuring cause of my troubling you with a letter; and for the better explanation of my request, I must assume a little egotism and begin with informing you who I am.

I am, sir, what is called a professional gentleman, but to which of the learned professions I belong is a matter of little consequence in the present affair. Know also, that I am one of a family extremely numerous by collateral connexions, being able to enumerate at least seven uncles and aunts, whose prolific endeavours have procured me the honour of an alliance with between twenty and thirty cousins. What, you will say, is there in all this to form the subject of a letter?

I will explain, Sir—I have no objection to the relationship of cousin. It is in some cases a title of great honour. The king calls his lords, and especially his privy-counsellors, *cousins*. Nor, have I any objection to such cousins as may happen to be born within the bills of mortality. But, Sir, COUNTRY COUSINS are a very different species of animal. All their senses are different, their sight, their taste, their hearing, are all more acute than usually falls to the lot of the human species, and withal so comprehensive that they can take in twenty times the number of objects that town-made cousins are capable of comprehending. Their curiosity, too, is far more keen

and capacious, and indeed almost insatiable, and their powers of admiration, or of wondering, are very much greater, while the rapidity with which they ask questions cannot be exceeded by any species of examination or scrutiny in the known world. But above all the desire to *see sights* is stronger in them than in any other human beings, and as they are by nature of robust and healthy constitutions, they are enabled to go through fatigues in this favourite pursuit which would soon knock up a Londoner.

Now, sir, as the present is the time of *migration* for these sight-*swallows*, you may see them in flocks at all public places, dragging a poor devil of a relation through every street, and to every show, and perplexing him with a thousand questions, uttered with eagerness and rapidity. That poor devil is the character which I have long been obliged to sustain at this season of the year, to the great annoyance of my peace and quietness, as well as interruption to my necessary employments. Every season brings up three or four of these country-cousins, who fasten upon me to squire them to "see every thing that is to be seen," and all denial is in vain. They cannot indeed understand what we call excuses or apologies: they conceive that Londoners are animals made to lead about country-folks, and in return for their having shown us Goose-green, half a dozen fields of corn, and perhaps the stump of an old tree, or the remains of a broken bridge, they expect we shall conduct them to the Tower, and the Abbey, and the Palace, and Guildhall, and the playhouses, Ranelagh, Vauxhall and Astley's, the Circus and Sadler's Wells, besides a thousand other inviting shillingsworths at this season, under the name of exhibitions, together with a profusion of ventriloquists, invisible girls, French readings, shell-work, auctions, boat races, charity-sermons, and Irish giants. Unquestionably, Sir, London is the only place for *seeing sights*, and I believe contains more objects of curiosity and more delightful monsters than any part of the world. Every day some new attraction of this kind is advertised, and as the admission is *one shilling only*, it is supposed to be an expence not worth regarding, no *seers* of *sights* having ever *seen* that thing called a multiplication-table, or being in the remotest degree sensible that a certain quantity of shillings will infallibly make pounds.

But, Sir, it is not merely the toil and fatigue of conducting country cousins, that I complain of, although that is something; nor the time consumed, although in London time is an object of some importance; but what oppresses me is the preparation and the extensive knowledge necessary to enable me to answer questions which, as I never put such myself, I never have any idea of resolving. A Londoner goes through a street to the place of his destination, regardless of whom he meets, if unknown to him, but a genuine country-cousin will let none pass until she has learnt his name. "La! who is that? "cousin—and La! who is this, cousin?" are repeated whenever a person appears to be better dressed, or, which is the same thing to curiosity, worse dressed than usual. I have been obliged in these times of dilemma to confer rank and dignity on strangers at random, and without their knowledge and consent. I have pointed out aldermen who never were even freemen of London, and have found an East India director in a man who probably never saw Leadenhall-street. I have conferred the honours of the peerage on some smart-looking citizens, and, on the other hand, have been obliged to turn certain dukes and earls into eminent grocers, and respectable corn-factors. I have pointed out a beau as a dealer in horses, and once, as I afterwards learned, mistook a baronet for a postillion. All shabby-looking men of dark complexions I turn into opulent Jews, and have often treated my cousins with a sight of a whole dean and chapter, although I knew they were nothing but a parcel of undertakers returning from a funeral. When pressed hard for Mr. Pitt, I have taken the tallest man I could find in the park, and the person I show for Mr. Fox is very well known in Duke's place. The bishops puzzle me a good deal, but I generally pass off the fattest and best looking men, with large wigs, that I happen to meet in the purlieus of the abbey; and I hope a very worthy friend of mine, not altogether unconnected with the church, but whose wig and dress only are clerical, will excuse me if I preferred him on one very pressing occasion to be Archbishop of York. In much the same way, I have been obliged to point out every distinguished personage in the houses of Lords or Commons. Nay I am sometimes obliged to mount a step higher, and I well remember that being very hard *bored* for the Queen, I made choice of a lady whom I never saw before, merely because she was riding in one of the carriages belonging to the master of the horse. I hope all the parties will excuse me; it was a case of distress. My cousins would have thought me a horrid fellow, if I did not know every body.

But this is not all; he that conducts *country cousins* must likewise know the owner of every empty carriage they may happen to pass. With regard to the carriages of the nobility, this knowledge may be attained by the previous study of heraldry. But, Mr. Editor, must I labour night and day to acquire the skill of a Rouge dragon, a Portcullis, or a Blue mantle, to the great detriment of the occupation by which I gain my bread? Must I study every point of the escutcheon, the dexter chief, the sinister chief, the honour point, the fesse point, the dexter base and the sinister base? Must I fill my poor brain with pales, and bends, with fesses and bars, with chevrons and crosses; and be able to tell who is honoured with lions, tygers, eagles, vultures, dolphins, whales, tortoises, grasshoppers, trees, plants, &c. &c. and all for what? That cousin Betty, and cousin Jenny, and cousin Polly may impress upon their intelligent minds that on the twenty-fourth day of June, in the memorable year one thousand eight hundred and three, exactly five minutes past three o'clock, the empty chariot of the Right Honourable the Earl of ——, stood in Parliament-street, about two feet three inches and three quarters from the paved way!

With regard to the houses, I have found myself yet more puzzled. The study of crowns, coronets, mitres, helmets, wreaths, crests, &c. might make me a match for any coach or vis-à-vis, but by what

study can a man know the inhabitants of all the houses of distinction, merely by looking at them? In this distress, however, I have been obliged to place our nobility in such mansions as were most convenient for myself, and if I have thus made any of them quit or exchange, without the aid of a conveyancer, I hope they will consider my urgent necessities, and that no man must appear ignorant in the eyes of his country cousins, who have taken up a notion, I know not how, that the people of London know one another as intimately as the inhabitants of a village, and that a man who has lived five years in London, and does not know every body, is in danger of dying in lamentable ignorance.

You may now perceive, Mr. Editor, that I have thus stated a few of the grievances arising from country-cousins, with a view to some mode of redress. Perhaps your correspondents may be able to suggest an adequate remedy for this growing evil. It appears to me, although I have not had leisure to digest the plan regularly, that public CICERONI, or CONDUCTORS of COUNTRY-COUSINS, should be appointed by act of parliament—that an office should be assigned for their use, where any family coming to town, may apply for a guide during their residence, and that a certain sum should be paid for his trouble, half of which should be his own reward, and the other half contribute to the exigencies of state. It is impossible for me to make an estimate of the wealth that would thus flow into the treasury; but if some able calculator will take the matter into consideration, I am disposed to think, that there are few taxes which would be more productive, because curiosity is a motive the least easy to resist, and rages with a fury in country-cousins which would be an effectual bar to any fraud or evasion in this branch of the revenue. But I shall leave the whole to the penetration and advice of your readers, and shall be happy to contribute *my experience* to any scheme that shall appear most feasible. I am not desirous of being thought the founder of the scheme, nor of claiming a reward for it, although I am pretty certain I shall receive the thanks of many industrious and well-disposed families, either in gold boxes, or upon vellum, splendidly emblazoned by that ingenious artist Mr. Tomkins.

I have only to add, that if any plan should be adopted, it must appear evident that great care will be necessary in selecting the proper persons as conductors. From what I have already taken the liberty to advance, as the result of my own experience, it is plain that no common man will do for this office. Their knowledge must be of the most extensive range. They must know men and things; they must have an acquaintance with the animal, vegetable, and mineral world. If they shew a lion, they must know where he comes from, and if a lord, where he is going to. Whether they meet a funeral or a wedding, a procession or an execution, they must be provided with its whole history, and all the names of the parties. They must not only know where every thing worth seeing is, but how it came there, from the monkey at the top of Bloomsbury church, to the giants in Guildhall. They must know the exact minute of half-price in Drury-lane theatre, and high-water at London bridge.—But it would be endless to recount, as it is almost impossible to conceive the various accomplishments and various information requisite to the office I propose. They must, however, with all their knowledge, possess a facility in answering unexpected questions, and must possess a knack at *impromptu*, for which they will have perpetual occasion, as well as a power of making transitions from one object to another of an entirely opposite nature, and they must be aware that it is utterly impossible to make answers in connexion, or to know from one question, what the next will be.

Lastly, and above all, they must have a far greater share of PATIENCE than ever fell to the lot of,

Sir, Your humble servant,

CONSANGUINEUS LONDINENSIS.

POLITICS.

BONAPARTE has men in abundance at his command. But he finds that these alone are not sufficient for all the purposes of ambition. While he is amply provided with men, he is miserably pinched for money, and feels that his powers are impotent by want of this indispensible assistant. He observes with envy and rage the degree in which this important advantage is enjoyed in this country, and the superiority which it gives to the efforts of a few men over the efforts of many. We have been forcibly struck with the proofs of these mean passions, respecting this country, which have been exhibited in the boasting, ridiculous speeches, and writings which have appeared in France on the occasion of the present rupture. The half-informed, the unreflecting part of the French people, among whom we reckon the First Consul, and the whole, or the greater part of those who compose his government, seem to think there is some necessary connection between our riches and their poverty; and by a similar process of reason, that the destruccon of our riches, would be the creation of riches to them.

Whoever has been at the pains to inform himself of the circumstances of France at the present moment, knows, that she is overburdened with taxes, and that instead of being able to bear an increase for the business of war, her industry is restrained, and her people oppressed by the load of those which she already sustains; that in proportion to the revenue of her people every individual pays double the sum taken from the subjects of any other government in Europe; and that her prosperity can never commence until she be eased of a great part of the overwhelming burden under which she now groans. The readers of the Literary Journal are acquainted with several of the general facts which decisively confirm this opinion; and we request them to turn back to those Numbers in which we attempted to give some account of the agriculture, the manufactures, the finances, and the condition of the labouring people in France. One thing indeed is to be observed, that France carries on war with a smaller addition of expence to that which she incurs in peace than almost any other nation, as the quantity of troops which she has kept on foot since the treaty of Amiens has scarcely been less than what she maintained during the war. But at the

same time the expence of maintaining an army in the field is out of all proportion greater than the expence of maintaining the same army at home; the expence even of maintaining troops encamped in time of peace is much greater than that of maintaining them in barracks or quarters. The direct expence, therefore, of the war to France must be considerable; and she must feel it severely, because she is little able to bear it. As far indeed as she can obtain plunder or forced contributions in the countries she may over-run, she will save herself, and carry on war at the expence of others. She has given evidence of her desire of this kind of aid by the expedition with which she has taken possession of Hanover. But in the present state of Europe the resources which she can draw from this expedient, do not seem capable of supporting her long. The whole of that commerce which was most productive to the revenue is annihilated by the war. The mode too of collecting the taxes, and keeping the public accounts, being still very defective in France, the strictest vigilance in the first persons in the government is necessary to prevent the greatest frauds and abuses. This vigilance during the year of peace has rendered the taxes much more productive. But as equal vigilance will be impossible during the hurry and agitation of war, the abuses must again be practised, and the revenue become defective. From all these causes, we have not a doubt that the French government will soon be in the greatest distress for money. It is a fact well known in France, that notwithstanding the pompous statement of the public accounts, it is even now harrassed for want of money. And the first enterprizes of the war which Bonaparte seems to have planned for himself is to reduce this country to the same situation.

Respecting the nature and causes of the wealth of nations he seems to have the notions only of the vulgar herd of mankind. He imagined during peace, that by forcing, if it were possible, a great part of the industry of France into foreign trade, contrary to the nature of the whole circumstances which constitute the present state of France, he should make that country as rich as he pleased. And he is of opinion now, that if he can by any means destroy the foreign trade of this country, he will make it as poor as he pleases. With this view he has taken possession of Hamburgh and Bremen; and we doubt not that he will exert all his efforts to shut us out of the Baltic and Embden. The most important interests of the potentates in the north of Europe are visibly and directly opposed to such an arrangement. And upon that account we should think it impossible to be allowed. But truly the supineness, the ignorance, and feebleness which have for some time appeared in the old governments on the continent of Europe, do not leave room for very sanguine hopes. They seem to be humbled, and confounded before the genius of republican France. The nations seem to be prepared to be over-run by that country, to have even their mental part subdued to a kind of acquiescence in that destiny. In fact the governments seem to be totally out of harmony with the exigencies and the spirit of the present times, to have neither the energy requisite to effect the changes in themselves which are necessary, nor to resist the external causes which are hastening to make still greater. By the advances, rather, which they make to France, and their attempts to curry favour, as it were, with that predominating country, they seem to court only the *euthanasia*, a gentle and easy dissolution. But should the concurrence of ignorant and weak governments be obtained to shut us out of Europe, from the Frozen Ocean to the Streights of Gibraltar, we think we shall be able to prove to the satisfaction of our readers, that this cause cannot have a very fatal influence, either upon our industry or our strength. We are extremely happy to be able to present some opinions on this subject, which we have for a considerable time entertained, under the authority of a Frenchman, of great political knowledge and sound judgment, the author of *Considerations sur l'organization sociale*. The observations of this gentleman, actuated by the interests of a Frenchman, and who possesses all the knowledge of France, which a cultivated mind, and the observation of all that has past in France during the eventful period of the last twenty years could furnish, cannot fail to attract attention. He speaks on this subject in the following manner:—

"The great objects connected with internal commerce are of a very different importance from those silly discussions which fill our Journals, and our books of political economy, concerning the liberty of foreign commerce, and the oppression exercised over it by the English. 'So rare are just ideas respecting this subject, that the Convention, in the middle of the war, when our ports were all blocked up, and our ships taken or consumed by worms in our harbours, made a navigation act, which, following the principle of that of England, tended to permit the commerce of France and of her colonies to be carried on by none but French vessels. Happily that foolish act was never put in execution, any more than the ridiculous project of prohibiting the entrance of English goods upon the continent. The powers of the continent may, it is true, shut their ports against the ships of Great Britain, and deprive them of these places of asylum in time of war, but it is impossible to prevent the introduction of their cargoes, because the wants of all the nations demand them; and because it is impossible to prevent the clandestine transactions which light vessels may conduct on so vast an extent of coast as that presented by France, Germany, and Spain, and the shores of the Mediterranean, and the Baltic. The greater the number of obstacles that might be presented, the more active and profitable would smuggling become; and the state, together with the consumers, would be the only victims of these inconsiderate measures. We have had sufficient proof of this at the different epochs of the revolution; and the restraints imposed upon the intercourse with England, have only tended to make us receive her goods by the north of Germany, that is to say, to enrich her traders, her factors, her commissioners, and carriers, to the prejudice of our own merchants, and those of Holland. Instead of paying for the sugar, the coffee, the indigo, or the produce of the English manufactures, at 5 or 6 per cent. above the price in England we have paid for them at 50, and often at 100 per cent above that price, because we were obli-

ged to add, over and above the natural profits of her manufacturers and merchants, that of so many extraordinary agents, the risk of long carriage, that of smuggling, and the increased slowness of returns, which augmenting the disadvantages of an unfavourable exchange, has caused us incalculable losses, without reckoning the destruction of a great part of our trade of transmission, which would be an object of very great importance, if our policy, our institutions, and our commercial laws favoured, instead of extinguishing it. Our commissioners ought to be the principal factors of the north, the agents of Italy, of Switzerland, and Spain, and it is only because foreign nations can trust neither us nor our government, that this commerce has always followed a direction contrary to the nature of things. At present England feeds Switzerland and Italy, by Germany and the Mediterranean, and the grain of Poland, as well as almost all the produce of the German empire, instead of arriving in Provence, in Spain, or Genoa, by the direct and short course of the Seine and the Rhone, traverse the ocean, pass the Streights of Gibraltar, and arrive at the place of their destination, after many dangers, great expence, and a vast loss of time."

"Instead of inquiring into the remedy of these evils, or of these inconveniences, and studying the causes which have mightily increased the splendour of the commerce of Great Britain, we like better to indulge our natural thoughtlessness, and accuse her of tyranny. We must, we say, first of all, destroy her despotism on the seas, by re-establishing our naval power, and then our commerce will be equal to hers.

"These dangerous errors stand the more in need of refutation, as they would infallibly prove the source of new wars, new oppressions, and the most ruinous expences.*

"The prosperity of the commerce of England rests principally upon her laws, upon her liberty, upon her glorious agriculture, upon her immense manufactures, her enormous capitals, the good order of her finances, the riches of her people, in fine, upon the manner in which she conducts her commercial affairs.

"There industry and ability are always honoured; there an honest and active man never wanted funds to execute a useful enterprise; there every thing advantageous to the community is powerfully supported by the public and the state; there, in short, commerce is carried on by the intervention of relations or friends, in whom confidence can be reposed; and houses of correspondence established by them in all parts of the world secure to the English a regularity, and advantages, which it would be vain to expect without the conjunction of all these means. Such, in reality, is the commercial despotism of Great Britain; it is her wisdom which conducts her to riches, while more favoured nations are sinking in poverty; it is not therefore by combating her invincible fleets that we can hope to break the maritime sceptre which she holds in her hand, but solely by imitating her conduct.

What was said of Lacedæmon may be said of England, her enemies would gain nothing by defeating her, because it is her legislation which causes her strength. What, moreover, is to be thought of the rash attempt of equalling her naval force? Have we calculated what it costs to support this force, and the exhausted state of our finances? Have we considered that the foundation of her formidable squadrons is an immense coasting trade, with an unrivalled position in the midst of the sea; and that being unable to have either so many sailors, or such experienced officers, the contest into which we would enter would be altogether to our disadvantage. The success of the navy of Louis XIV. and the efforts of that of Louis XVI. are quoted; but England was then far from possessing the naval, financial, and commercial advantages which she possesses at present, and which she cannot lose without great errors."

Our foreign trade will receive a temporary depression, it is not to be doubted, from the war. It is turned out of the old channels; and it is some time before it finds out new. Our merchants ought by no means on account of this suspension to give way to alarms, by which they often injure deeply both themselves and their country. In the first year of the last war, during which the export trade of Great Britain flourished more than at any preceding period, more perhaps than was good for her, the exportation of British manufacture alone sunk nearly one third, from eighteen millions official value to thirteen millions. The next year, however, it rose again to sixteen millions; in two years more it rose to nineteen millions; and in 1801, the last year of the war, it was more than twenty-five millions and a half. Though a certain degree of stagnation therefore should be experienced on the commencement of hostilities, there is no reason to conclude that it will be durable. And our proper business is to increase our spirit and activity, till we find out the channels suited to the altered situation of affairs.

One outlet of very great importance we undoubtedly possess in a much more perfect degree than we ever did before, the shores of Asia, Africa, and Europe, from the Streights of Gibraltar to the bottom of the Black Sea. These countries, though the greater part of them are dreadfully depressed by bad governments, yet being naturally the finest in the world, in respect both of soil and climate, cannot but afford very plentiful materials of commerce, when explored and stimulated by a nation so active, enterprising, and rich as Great Britain. This trade has been hitherto the most valuable part by far of the external commerce of France. From this, by the possession of Malta, we have it now in our power completely to exclude her. The city of Venice alone, which once supplied the whole of Europe with rare and distant commodities, must soon become an extensive market for British goods, now that it belongs to the house of Austria, and serves as an inlet to its rich and extensive dominions. The whole trade of Italy must thus be in our hands; the whole trade of Spain, notwithstanding any prohibitory acts, which in compliance with the dictates of France she may establish, will follow the same fate; the whole northern coast of

* This was written only about a year ago; and it is remarkable that these very errors, which this Author here stigmatizes, which he deems as ridiculous, mischievous, and ruinous, are the very principles held up, commented upon, applauded, in all the speeches of the warlike orators, and adulators of the First Consul, at the present moment in France. EDITOR.

Africa, Asia-minor, Greece, and the richest part of Russia, on the shores of the Black Sea, will be enjoyed by us without a rival, and must in a little time be able to absorb a much greater trade than we can afford for that quarter. Let us think, besides, of the extension which our internal trade, the most profitable of all, and the improvements which our agriculture, emphatically the most important employment both of capital and of industry, are yet capable of receiving, and we shall have no occasion to be afraid of being cut off from the means of advantageous industry, by the angry machinations of the First Consul, or any others whom he may be able to make partakers of his folly. For our own parts, we are decidedly of opinion, that too great a part by far of the trade of Great Britain is foreign trade. And one mischievous effect of the late war which we strongly lamented, was its tendency to increase that part to a much greater degree than it ever was before. Possessing by our naval superiority, and by the destruction of the foreign trade of Spain and France, the complete monopoly of the foreign market, the profits of that trade were so raised, as to draw, or keep from the internal trade of the country, a great share of capital and industry, which otherwise would have gone to it. But the internal trade of the country, as is known to all those who have studied the principles of political economy, is much more favourable to its riches and strength than a foreign trade. So far therefore was the prosperity of the country retarded by the extension of the foreign trade. Another serious disadvantage, as we now experience, of a foreign trade disproportionately great, is the dependence on our neighbours in which it places us. By threatening to exclude us from their ports, they put us in fear of the want of employment and subsistence for our people, and of the loss of a great source of wealth for the support of the state. From these causes of alarm and danger the internal trade is altogether exempt; and on that account, were it even less profitable than the foreign, ought to be preferred.

The business of a wise legislature, therefore, would be, as obstructions come to be put in the way of our foreign trade, to endeavour to create facilities for our internal trade. And there are several very obvious expedients for this purpose, which we think might without much inconvenience be adopted. All the laws, for example, respecting apprenticeships and corporations ought to be repealed, which would greatly accelerate the motions of industry. Every statute too which prescribes any particular mode of conducting a manufacture, or disposing of its produce, different from what the interest of the seller and buyer would dictate, ought to be removed. And, in particular the poor laws, and the poors rates, the greatest practical disorder perhaps which exists in the country, ought to be abolished.

2. *Biographical Account of* François Veron de Forbonnois.

Forbonnois, the history of whose life is intimately connected with that of the administration of the French finances, under the ancient regime, was born at Mans, the 2d October 1722; his father François Louis Veron Duverger, was a merchant of that city. Having finished his education at the college of Beauvais, in Paris, he left it in the sixteenth year of his age, to follow the tammy-trade, which had long been carried on by his family; his great grandfather having established at Mans a manufactory of tammies, which, from that circumstance, in Spain were called *Verones*. In 1741 he was sent by his father to Spain and Italy, whence he returned to Mans in 1743. His grandfather by the mother's side, having soon after retired from business, he was thereby enabled to trade on his own account, but declining, from motives of delicacy, to carry on at Mans the same trade as his father, he went to Nantes, where his uncle was established as a ship-owner, to obtain a knowledge of the mercantile concerns and transactions of that city. Having spent several years at Nantes, and collected much valuable information on maritime and colonial trade, he entered in 1752 upon a speculation, which induced him to go to Paris. Confined to a small circle of friends and acquaintance, he lived there in great privacy, yet presented to government several memoirs, which experiencing a very cool reception, he resolved to write in future, not for administration, but the public. He published accordingly in 1753, his—"*Théorie et pratique du Commerce et de la Marine*," a free translation from the Spanish of Dr. Geron. de Votariz, which was soon followed by the "*Considerations sur les finances d'Espagne relativement à celles de France*," a work in which he displayed such intimate acquaintance with the Spanish system of finance, that the Spanish Ambassador at the Court of Versailles proposed him to Marshal de Noailles, as Consul-general of Spain, but the former being soon after recalled by his court, the appointment did not take place. About the same time he published, in 1754, his "*Essai sur la partie politique du commerce de terre et de mer, de l'agriculture et des finances*," which within three weeks passed through two editions; the third edition was published in 1766, and the fourth in 1796, considerably improved and enlarged. From his profound knowledge in matters relative to money and coinage, he was appointed in 1755, to examine into the enormous abuses which had crept into the administration of the French mint. He immediately proposed a new coinage, but his plan was not carried into execution until 1771; he was, however, in the meanwhile, appointed Inspector-general of the mint, a new office expressly established for him.

Having obtained free admittance to the library of the family of Noailles, rich in manuscripts relative to the administration of the finances of France, he conceived the idea of composing his "*Recherches et considérations sur les finances de France depuis 1595 jusqu'à 1721*;" printed at Basle, 1758, in 2 vols. 4to. and reprinted the same year at Liege, in 6 vols. in 8vo. This valuable work experienced the most distinguished reception both in France and other countries, and supplied *Thomas* with matter for his observations on the true principles of financial administration in his eulogy of Sully. The Duke *de Choiseuil* being appointed prime minister, he endeavoured to place Forbonnois in the department for foreign affairs, but the latter declining the appointment, Choiseuil requested he would apply himself to lay down a general system

of trade, and to comment on all commercial treaties concluded by France, in order that certain and uniform principles might be introduced into that important department of political economy. While he was making the necessary preparations for executing that commission, the abandoned state of the French finances in 1759, occasioned the appointment of the noted Sithonette to the office of comptroller-general or minister of finances. Without being in the least connected with that minister, Forbonnois received an offer of the place of principal clerk of the department of finance, which being declined, the minister requested he would at least privately lend him his assistance in projecting the first financial operations necessary for opening the war both by sea and land, at a time when 1,500,000 livres only were left in the Treasury. Eight days after Forbonnois brought him all the plans and draughts of edicts for the first operations. They were approved by the minister and laid before Louis XV. who in consequence thereof appointed Forbonnois *Inspector of the depôt of the general financial comptrol*, a title which he himself suggested, in order to avoid the eclat of a more brilliant appointment. However Forbonnois' acknowledged superiority as a financier, which proved exceedingly offensive to the minister's lady, soon brought on a coolness between her husband and him, which induced Forbonnois to retire into the country, until Sithonette's disgrace and dismission. He might have succeeded him as comptroller-general, had he been willing to consent to sacrifices which he could not reconcile with his honesty and candour.

While he held the place of Inspector of the depôt of the general financial comptrol, he published his "*Lettre d'un Banquier à son correspondent de province;*" chiefly intended to give a favourable account of the minister's operation. In 1760 he pointed out to the Duke de Choiseuil the perilous situation of France, and suggested the plan of a treaty of peace, calculated to tempt the ambition of Great Britain, and at the same time to save resources for France. This plan met with so much applause, that *Don de Fuentes*, at that time Spanish Ambassador at Paris, who was admitted to the conferences, offered an armed neutrality on the part of his court to facilitate its execution. Forbonnois was charged to draw up the necessary acts and plans, and to elucidate a great variety of points respecting the fisheries, the means of enlarging them the sacrifices to be made to England, &c. nay he was offered the appointment of plenipotentiary to conclude the treaty; but having executed his charge, and demanded a conference, he received no answer. Being entrusted with the secrets of the state, he began to entertain strong apprehensions for his personal safety, and took refuge in a glass-manufactory in the mountains of Burgundy, in which he was concerned. He returned however afterwards to Paris, and in order to render both the minister and the financiers perfectly easy on his account, he purchased the place of a counsellor or member of the parliament of Metz.

In 1767 and 1768, he published his "*Principes et observations économiques*" and "*Supplement au journal d'Août 1768, ou examen du livre intitulé, Principes sur la liberté du commerce des grains.*" At the abolition of the parliament of Metz, in 1770, he resolved to retire to his estate, which he did, but *Terray's* appointment to the place of comptroller-general brought him once more to Paris. He privately assisted that minister in the execution of the memorable financial operations which distinguish his administration, but declined to accept any place under government, resigned the office of Inspector-general of the mint, obtained a pension suitable to the station he had filled, and retired again to his estate, where he continued until 1790. In this year we find him at Mans, among the electors assembled in that city.

In 1787 he married Miss Leray de Charmont, an accomplished and highly amiable lady, who by the mildness of her character brightened the evening of his meritorious life, and in some measure indemnified him for the disappointments he had experienced in what is called "*le grand monde.*" The leisure he enjoyed in his peaceful retreat was employed in agricultural and literary pursuits. To the journal edited by *Dupont* of *Nemours*, he contributed several interesting memoirs signed—*The Old Man of the Sarthe.* He also published, in 1789, "*Prospectus sur les finances, dedié aux bons François,*" and some time after his "*Observations succintes sur l'émission de deux milliards d'assignats.*" At the beginning of the revolution, he performed the functions of President of the district of *Mamers*, and also obtained the distinction of his name being inserted in the list of candidates for the office of tutor to the Prince Royal, son of Louis XVI.

In April 1799, the disturbances which prevailed in the department of the Sarthe, and several anonymous threatening letters he received, induced him at his advanced age to leave his country seat, and take refuge in Paris. Finding in the metropolis but few of his former acquaintance, he formed new connections, and became a frequent visitor of the National Institute, of which he was a member. One of his last works is his "*Analyse des principes sur la circulation des denrees et l'influence du numeraire sur cette circulation.*" At the time he composed this valuable publication, he was already afflicted with a chronical disease, which put a period to his existence on the 25th of September, 1800.

Mr. Editor,

Though I approve in general of the sensible observations of your political Correspondent in your last Journal, I dissent a little from what he says of our means of internal defence. Certainly nothing can be more obvious than that troops are efficient in proportion to the exactness of their discipline, and the service they have seen; and no one will dispute the superiority of our regulars to our militia, and of our militia to the volunteer corps, but that all of them may be of essential use, in case of a formidable invasion, appears to me beyond a doubt.

A militia force, if properly constituted, should consist of those persons only, who, without making arms their sole profession, are able to spare so much of their time from their ordinary occupation, (a month in the year for instance) as to be so trained under a mild but legal coercion, that they may be able, on a very short notice, to become a very good auxiliary force to the regulars, without in any way interfering with

the source from which the regular force is supplied; such was the original institution, but if it at all hurts the recruiting of the army, which is I fear too much the case at present, it is, to use the words of Dryden,

'Arming the left hand to cut off the right.'

The volunteer corps would be chiefly, and, I fear I may add, [illegible] useful in repressing the spirit of plunder and disaffection in the moment of alarm; for surely we cannot, after the recent terrible example of Colonel Despard and his adherents, speak with your Correspondent of "the time when insurrections were to be dreaded," as an era entirely passed; and perhaps there is no such difference between troops trained at all; for instance, between the best veteran regiment of the line and the volunteer corps, as there is between the volunteer corps, slight as their discipline is, and an undisciplined rabble, however armed, as their arms would be more formidable to one another than their assailants; and the volunteer cavalry would be extremely useful in harassing an enemy in every moment and at every point, in passing through a country with every part of which they would be minutely acquainted, a circumstance of the utmost consequence, and which shews the extreme absurdity of the mode now adopted, of removing the militia regiments as far as possible from their own counties, where, and where only, they would be more formidable than the best regular regiment in the service. It is this only that, (as in the American war) has enabled a newly formed militia to stop the progress of an invading army, till by active service they themselves have acquired all the discipline and steady courage of veteran troops.

Your correspondent I think can hardly be serious, when he mentions the lives of gentlemen as too precious to be thrown away against the dregs of the French populace. Surely the moment a French force should obtain any footing in the country, no pursuit but the exercise of arms, and the adoption of the most energetic means of immediately destroying or expelling them, would employ the attention of any one who deserved the name of man.

"Each from the tablet of his memory
"Would wipe away all trivial fond records,
"All saws of book, all forms, all pressures past,
"That youth and observation copied there,"

and solely bend their powers of body and mind individually and collectively, to meet the enemy with army succeeding army, in case of one, two, or even twenty defeats.

There is one observation of your correspondent, on which it is impossible to bestow too much praise, I mean that where he urges the necessity of systemizing an extensive plan of warfare. This was never so wisely or so effectually done as by Mr. Pitt, at the close of the late reign, and the consequence was a series of success unparalleled in the annals of the country.

I am, Sir, &c. E.

*** *In our next Number, which closes the first volume of the* LITERARY JOURNAL, *we shall have to announce an important alteration in the future conduct of the Work, which we think cannot fail to be highly satisfactory to our readers.*

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PROCLAMATION *for pardoning* Deserters *from the* Militia.

War Office, 14th June, 1803.

WHEREAS it hath been represented to THE KING, that there are at this time many men, who, having been sworn and enrolled in His Majesty's Militia Forces, have made default by not appearing and joining their respective Regiments, Battalions, Corps, or Independent Companies, when ordered to be embodied, or by Deserting or absenting themselves therefrom; and who might be induced to return to their Duty by an offer of His Majesty's Gracious Pardon; and that such an instance of his Royal Clemency would have a due influence upon their future behaviour; His Majesty has accordingly been graciously pleased to grant His Free Pardon to all Militia Men, having so made Default by not appearing, or by Desertion, or Absence from Duty, who shall return to, and join their respective Regiments, Battalions, Corps, or Independent Companies, *on or before the 14th day of July next*, or who shall deliver themselves up at the Head Quarters of any other Regiment, Battalion, Corps, or independant company of Militia, or to any detachment of His Majesty's other Forces, or to any Military Post, on or before the said 14th Day of July next, and be from thence marched to their proper Regiments, Battalions, Corps, or Independent Companies.

Any Soldier who may desert from the Militia after these His Majesty's Gracious Intentions are made Public, shall not be included in the above Pardon, but shall be proceeded against with the utmost severity; as shall also all the said Defaulters, Deserters, and Absentees, who shall not have joined their proper Regiments, Battalions, Corps, or Independent Companies of Militia, or delivered themselves up to some other Regiment, Battalion, Corps, or Independent Company of Militia, or to some detachment of His Majesty's other Forces, or to some Military Post, by the said 14th day of July next.

And all Justices of the Peace, Magistrates, Constables, and Peace Officers, and all other Persons, whatever, are hereby enjoined, and required, in pursuance of the Act just passed "for more speedily completing the Militia of Great Britain," to apprehend, seize, take, and detain, such Defaulters, Deserters, and Absentees, for the purpose of delivering them into safe Custody at any Military Head Quarters, or into Gaol, near to the Place where they shall be apprehended, in order that they may be dealt with according to Law: and all such of the said Defaulters, Deserters, or Absentees, as were enrolled as Substitutes or Volunteers in the Militia, shall, upon being identified before any General, Regimental, or Detachment Court-Martial, be forthwith sent to serve in *His Majesty's* Regular Forces stationed Abroad, until duly discharged therefrom; and the person or persons, who shall apprehend and detain any such Defaulter, Deserter, or Absentee, from the Militia, and deliver him into safe custody as aforesaid, shall receive the sum of *twenty shillings, over and above the reward of twenty shillings*, to which such Person or Persons will also be entitled under the Mutiny Act; and shall be paid the same in like manner as is directed in respect to the Reward last mentioned,

BY HIS MAJESTY'S COMMAND,
C. YORKE.

Next Week will be Published, price 1*s.* 6*d.*

Dedicated by Permission to the Right Hon. Henry Addington, First Lord of his Majesty's Treasury, and Chancellor of his Majesty's Exchequer.

THE ANNIVERSARY SERMON of the ROYAL HUMANE SOCIETY. Preached by the Right Rev. GEORGE ISAAC HUNTINGFORD, D. D. Lord Bishop of Gloucester, at *St. James's Church*, Westminster. On the 24th April, 1803.

An Appendix is subjoined on Resuscitation, remarkable instances of Re-animation. The Process for restoring Life, and appropriate Observations by Dr. Hawes.

Printed for the Society and will be sold by Rivingtons, Cadell, &c.

NUMBER 26.] THURSDAY, JUNE 30, 1803.

PHYSICS.

1. *On Yttria.*

IT is not unlikely that the time is fast approaching, when several of the newly discovered earths and metals will be found to be compounds. The late very interesting paper on Palladium, read by Mr. Chenevix before the Royal Society, gives us, as it were, a key to the decomposition of these bodies, by pointing out the very unexpected properties which result from particular ways of uniting platinum and mercury, and the difficulty of decomposing compounds, when united in one way, which when united in another, yield to all the common chemical instruments of analysis. In the mean time it is absolutely necessary for us to be precisely acquainted with the peculiar properties of these bodies, that we may know them when they happen to come in our way in the course of analyses, and that we may be able to apply the proper methods of separating them from those bodies with which they are usually combined.

The earth called Yttria, discovered by Gadolin in 1794, in the mineral denominated Gadolonite, and more lately by Ekeberg, in the Yttrotantalite, has hitherto occurred only in Sweden. Four sets of experiments have been made to determine its properties, by four eminent chemists, namely Gadolin, Ekeberg, Vauquelin, and Klaproth. The results obtained by the first three are we presume pretty well known to the chemists of this country, as they have been published in the French and English journals. But the experiments of Klaproth, though the most numerous and precise of all, still continue untranslated, and therefore unknown to most of our countrymen. The following general account of his analysis and results, must therefore prove acceptable to our readers.

1. The mineral called Gadolinite is of a dark greenish black colour. Its powder is greyish green. It occurs in a mass of granite, mixed with reddish felspar. Internally it is brilliant; lustre common. Fracture conchoidal. Fragments amorphous; edges sharp. Opake, except when in very thin pieces, in which case it transmits some green coloured rays, when held between the eye and the light. Hardness, such as not to be scratched with a knife, yet it does not strike fire with steel. Brittle. Specific gravity, 4.237.

2. Ekeberg found the component parts of gadolonite as follows:—

25.0	Silica
18.0	Oxide of iron
4.5	Alumina
47.5	Yttria.
95.0	

His method of analysing the mineral was this:—A quantity of it, reduced to a fine powder, was digested with muriatic acid in a moderate heat. The whole of it was dissolved except a gelatinous matter, which was the silica. This earth was separated by filtration, and when sufficiently washed and dried, its weight was ascertained. The solution was evaporated to dryness, and re-dissolved in spirit of wine, to ascertain that no silica had been taken up by the acid. It was diluted with water, and precipitated by pure ammoniac. The brown precipitate thus obtained was dissolved in sulphuric acid, evaporated to dryness, and then exposed for half an hour to a strong red heat. By this treatment it assumed the form of a brick-red powder. When this powder was treated with water, the oxide of iron and allumina remained insoluble, having been deprived of the acid by the heat. The water had dissolved the sulphat of yttria. The earth was precipitated by an alkali, and its weight ascertained. The insoluble part was re-dissolved in muriatic acid, precipitated by ammonia, and boiled with potass ley. The oxide of iron remained, and its weight was ascertained. The potass dissolved the alumina. By saturating with an acid, and precipitating with ammonia, the alumina was separated.

3. When Mr. Klaproth repeated this process, he found that it did not succeed completely. A strong red heat not only depriving the alumina and iron of their acid, but a portion of the yttria also. For that reason he had recourse to the following method, which answered his purpose completely.

Two hundred grains of Gadolonite, in powder, when heated to redness in a covered crucible lost one grain in weight.

They were reduced to a fine powder, and digested with nitro-muriatic acid in a moderate heat, till the whole was completely decomposed. The liquid was then evaporated nearly to dryness, and diluted with warm acidulated water, and thrown upon a filter. The silica was thus separated. When dried and heated to redness, it weighed 42½ grains.

The liquid which passed through the filter was diluted with more water, the excess of acid which it contained was neutralized by soda ley, and then a solution of succinat of soda was gradually dropt in as long as any precipitate appeared. By this method the whole of the iron separated combined with the succinic acid in the state of reddish brown flocks. The precipitate weighed 62 grains. It was heated to redness in a crucible, then triturated with oil, and heated again in a covered crucible. By this treatment the succinic acid was destroyed and the iron brought to the state of a black oxide. It was all attracted by the magnet, and weighed 35 grains. This ingenious method of separating iron from other bodies with which it is combined, was discovered by Mr. Gehlen, who is expected soon to publish an important dissertation on the properties of succinic acid.

The solution thus freed from the iron was colourless. It was saturated with carbonat of soda. A

white precipitate appeared, which weighed, when dry, 219 grains. One half of this, or 109½ grains, on being kept half an hour in a red heat, weighed only 60¼ grains.

To estimate the proportion of alumina, 100 grains of gadolonite were dissolved in nitro-muriatic acid, the silica separated, and pure ammonia poured into the solution. The precipitate was washed and treated while still moist with soda ley, in order to dissolve the alumina. The soda when decanted off, the undissolved part was saturated with sulphuric acid, and then mixed with carbonat of soda. The precipitate which appeared was dissolved in muriatic acid, and the solution supersaturated with carbonat of ammonia, to retain any yttria which might be present. The precipitate which remained, was dissolved in sulphuric acid, and a portion of potass added to the solution. Crystals of alum were formed, which weighed 5 grains; this gives us ½ grain of alumina in 100 of gadolinate. This analysis gives us the composition of gadolinite as follows:—

59.75	Yttria
24.25	Silica
17.50	Black oxide of iron
0.50	Alumina
.50	Water
99.50	

4. The properties of yttria, ascertained by Klaproth, are the following:—

It combines with carbonic acid. The carbonat is a white powder, composed of

55	Yttria
27	Water
18	Carbonic acid
100	

It dissolves readily in sulphuric acid. The solution when sufficiently concentrated, forms the rhomboidal crystals of an amethyst red colour. Their specific gravity is 2.790. They are soluble in about 25 times their weight of cold water, and not much more soluble in hot water. They have a sweet taste accompanied by a certain degree of astringency. Sulphat of glucina is readily distinguished from sulphat of yttria, by the difference of its properties. Its crystals are colourless, have a different shape, contain more water of crystallization, and their specific gravity is less.

The solution of yttria in nitric and muriatic acids does not crystallize. When concentrated it assumes the consistence of pitch, and may even be evaporated to dryness, without showing any disposition to shoot into crystals.

Yttria dissolves readily in acetous acid, and the solution shoots into compact crystals, which are not altered by exposure to the air. Their colour is a pale amethyst red, their form a four-sided prism, with obliquely truncated extremities. The acetite of glucina does not crystallize.

Yttria is precipitated from muriatic acid by carbonat of ammonia; but if this last be added in excess, the earth is again dissolved. In this respect, yttria agrees with glucina. It deserves attention, that if the solution of gadolonite in muriatic acid, consisting o oxide of iron and yttria, be precipitated by carbonat of ammonia, an excess of this last not only re-dissolves the yttria, but the oxide of iron also; so that this method cannot be employed to separate yttria from iron.

Yttria is precipitated by pure ammonia, but not re-dissolved by adding the alkali to excess. One hundred parts of yttria thus precipitated and dried in a low heat, if they be heated to redness, lose 69 parts of their weight.

Yttria is precipitated likewise by the carbonats of potass and soda, and re-dissolved by adding these liquids in excess.

It is precipitated equally by the pure fixed alkalies, but not re-dissolved by adding them in excess. Neither is any perceptible quantity of yttria dissolved by boiling it in alkaline leys.

The prussiat of potass precipitates yttria from muriatic acid, in the state of a heavy pearl grey powder. An excess of acid causes the precipitate to disappear. This property renders it impossible to separate iron from yttria, by the prussic acid.

The solution of tan, and the infusion of nut-galls, precipitate yttria from muriatic acid, of a light ash grey colour. But gallic acid occasions only a slight degree of turbidness. This property distinguishes yttria from glucina.

Sulphureted hydrogen and the hydrosulphurets, do not precipitate yttria from acids. The hydrosulphurets, therefore, may be employed to separate iron from that earth, and they are next to the succinats for this purpose.

Oxalic acid, and oxalat of potass, precipitate yttria from acids on the state of a white powder.

The tartrite of potass occasions a precipitate which is re-dissolved on adding water to the solution.

The phosphat of soda occasions a white precipitate.

Arseniat of potass also occasions a white precipitate.

When succinat of soda is dropt into solutions of yttria in acids sufficiently diluted, no change takes place; but if the solution be concentrated, small cubic crystals of succinat of yttria are precipitated. Therefore, before attempting to separate iron from yttria by means of the succinats, we must take care to dilute the liquor with a sufficient quantity of water.

When acetite of yttria and succinat of soda are mixed together, the same crystals are precipitated.

In the tables of affinity yttria comes after barytes, strontian and lime, for it is separated from acids by solutions of these three earths in water.

Before the blow-pipe yttria forms, with microcosmic salt and borax, a transparent colourless glass bead.

From these properties it follows, that it is distinct from all the other earthy bodies. It constitutes, as Klaproth observes, one of the links of the chain which unites the metals and earths. Resembling in several of its properties the metallic oxides more than the earths. Thus it is precipitated from acids by prussiat of potass, a property thought peculiar to these metals; yttria, however, possesses it in common with zinconia. It forms with acids coloured crystals, a property hitherto observed only in the metals.

Yttria resembles glucina in the sweet taste observed

able in the combinations formed by it with the acids. Mr. Klaproth terminates his memoir by remarking the impropriety of naming substances from properties considered as peculiar to them. Glucina was named by Vauquelin on account of this very property, which is so far from belonging exclusively to it, that yttria possesses it in as great perfection. He thinks it should have been called *beryllina*, from the beryl, the mineral in which it was first found.

2. *On the Gas from the Distillation of Oil.*

Mr. Proust has lately published in the Journal de Physique, a very confused paper on the carbureted hydrogen obtained from oil. Most of the facts which he points out, have been long known to British chemists, and will be found in their dissertations.

When olive oil is distilled, there comes over a great quantity of gas, which on examination will be found a mixture of carbonic acid, and a peculiar kind of carbureted hydrogen. This we presume was known to every chemist. It may be obtained from every heavy oil; from fat, and even from bones in enormous quantities.

The smell of this gas is peculiarly offensive, and every person must have observed that it carries along with it abundance of oil, part of which it deposits on the sides of the jars in which it is received; but part of it still retains with much obstinacy, unless the precaution be taken to pass it through lime or an alkaline ley. Had Mr. Proust tried that experiment he would have changed some of his opinions. It burns with a strong yellow flame, depositing some soot, and Mr. Proust informs us, that it becomes lighter by being passed through alcohol.

Mr. Proust has observed that olive oil by distillation is converted into a volatile odorous essential oil, owing he supposes to its having dissolved a portion of carbureted hydrogen. This supposition, we acknowledge, is to us altogether incomprehensible. When the volatile oil, thus formed, is heated in a retort with water, part of it comes over. Its specific gravity is to that of olive oil as 91 to 100. It boils as readily as oil of turpentine, and burns like it, when its vapour is set on fire. It swims on alcohol, which dissolves it with ease. When this oil is made to pass through a red hot tube, it is decomposed, and carbureted hydrogen formed in abundance.

Mr. Proust affirms that when soap is distilled to the destruction of its oil, the residuum is sebat of potass. He must mean soft soap we presume, as hard soap contains soda. What is meant by sebat it is not easy to say. It is pretty clear that he has overlooked the experiments of Thenard, as he mentions a penetrating vapour as the test of the presence of sebacic acid.

He points out the following simple method of reducing oxide of iron to the metallic state. Mix together in a small retort, 4 parts of the iron ore of Elba, and one part of charcoal powder. Coat the retort with clay, leaving the coating at the bottom of the thickness of two inches. Place it immediately on the grate of the furnace, and let its neck project by the door of the fire place. Close it up with pieces of bricks and earth which will keep the retort in its place. The beak of the retort, or a tube luted to it, is to be plunged into the pneumatic trough. Things being thus arranged, the retort is to be surrounded with charcoal and the fire kindled. Carbonic acid and carbonic oxide come over in abundance, and in about an hour the iron is reduced. When the retort is cold, its belly will be found nearly filled with pure iron, of a spongy appearance, which acquires the metallic state when rubbed with any smooth body. The mass is found soldered together, and breaks with difficulty. Before the blow-pipe it burns like iron filings. The magnet attracts the whole of it, and in short, it possesses all the properties of pure iron. Plumbago is also formed during this process. Hence when this iron is mixed with diluted sulphuric acid, the hydrogen gas evolved has the usual disagreeable smell. For Proust ascribes this smell to a little bitumen, which he says is always formed when sulphuric acid is made to act upon iron containing plumbago.

If blood be substituted for charcoal in this operation, carbonat of ammonia is found in the neck of the retort, and when the iron is dissolved, some phosphat of iron separates from the solution. The usual gases are evolved.

Mr. Proust points out the difficulty of exploding mixtures of carbonic oxide gas (we suppose) with oxygen gas, and observes with surprize, that after the explosion the bulk of the gases is increased, and that nothing but carbonic acid is formed. All these facts have been pointed out long ago by Mr. Cruikshank, in his papers on carbonic oxide, and sufficiently accounted for; they have even been noticed by the French chemists. It is rather surprizing therefore, to see a man of so much candour, and so well informed as Mr. Proust, publish them again without any reference to the previous dissertations of those gentlemen, especially as the importance of his own chemical labours and discoveries has made it altogether unnecessary for him to borrow the discoveries of others.

After all, it is very possible that he alludes to the species of carbureted hydrogen gas, which he calls *oily hydrogen*. We know by experiment, that the facts he mentions hold true of that gas; but they have been anticipated also by Mr. Cruikshank. We would advise the chemical reader to consult on this subject the very curious dissertation of Berthollet on charcoal, published in the fourth volume of the memoirs of the French National Institute.

3. *On the Specific Gravity of the Alloys of Gold.*

In our last Number, we gave an abstract of that part of Mr. Hatchett's important dissertation which treated of the alloys of gold. To complete this branch of the subject, it remains for us only to state the experiments of our author respecting the specific gravity of these compounds.

This constituted one of the most difficult parts of the investigation. Besides the sources of uncertainty formerly known, Mr. Hatchett has pointed out several new ones which were not suspected, and which almost preclude even the possibility of attaining precision.

The rate of cooling, the nature of the mould, the

quantity of the mass, the subsequent treatment, all conspire to alter the texture and to prevent it from being uniformly dense. That part of the metal which is undermost, is always much more compressed than that which is uppermost. Accordingly, the density of the two extremes of an ingot are found to differ very considerably from each other. This will appear evidently from the following table.

	Specific Gravity. Upper end.	Lower end
1. Gold made standard by silver.....	18.273	17.186
2. Gold made standard by equal parts of silver and copper.....	18.062	16.659
3. Gold made standard by copper.....	18.492	16.680
4. Gold made standard by lead.....	18.124	18.037
5. Gold made standard by equal parts of copper and iron.....	17.068	16.924
6. Gold made standard by an alloy composed of ½ copper and ½ tin...	17.551	16.747
7. Gold made standard by antimony.....	17.121	16.707

Another circumstance which Mr. Hatchett has found to diminish the specific gravity of gold and its alloys, is the friction of two pieces of metal against each other. This is a fact which could scarcely have been expected prior to experiment. Mr. Hatchett explains it by supposing heat to be evolved by the friction which expands the metal, and the expansion continues in some measure after the heat is dissipated. Two pieces of copper being made to rub against each other by means of a machine, after 22200 revolutions of the machine, their specific gravity was examined. Before friction it had been found to be 8.785, after friction it was 8.283.

The following table will shew the diminution which took place in other cases on friction long continued.

	Specific gravity before friction.	Specific gravity after friction.
1. Gold of 23 carats 3½ grains fine.	19.277	19.171
2. Gold alloyed with silver.....	18.092	18.054
3. Gold alloyed with silver and copper.....	18.184	18.182
4. Gold alloyed with copper.....	18.053	18.014
5. Gold alloyed with copper and iron.....	17.151	17.095
6. Gold alloyed with copper & tin.	17.607	17.581
7. Gold and copper in equal parts.	12.142	12.139

NOTICES.

In the thirteenth Number of the Literary Journal, we noticed a memorial on a new method of steering air-balloons, discovered by Professor Daenzel, which was read in the Sitting of the Royal Academy of Sciences at Berlin, of the 25th of February last. In consequence of the various reports circulated with respect to that discovery, the Academy has lately published a notice, stating, "that as Professor Daenzel's memoir does not contain any physical or mathematical grounds of the possibility of a voluntary direction of the like balloons, and as the machine produced by Professor Daenzel, does not establish that possibility, the Academy is of opinion, that the method of steering air-balloons, proposed by him, is not likely to prove successful."

Doctor Heinze has made very successful experiments on the estates of Count Nicolai Sergeitsch Rumanzof, to inoculate sheep for the cow-pox. By vaccinating upwards of 3000 sheep, he prevented them from being infected by an epidemical disease, which proved mortal to a great number of sheep in the neighbourhood, and also to those on the Count's estates, which were not so inoculated.

LITERATURE.

1. *Grammaire générale et Raisonnée de Port Royal. Par Arnauld et Lancelot; précédée d'un Essai sur l'Origine et les progrès de la Langue Française, par* M. Petitot, *et suivie du Commentaire de* M. Duclos, *&c. Paris*, 1803. 470 *Pages*, 8vo.

The name of Port Royal is classical in the history of modern Literature, and the Universal Grammar published under the name of that illustrious Society was allowed to be the first methodical and successful attempt to investigate the philosophical theory of language. The subsequent Commentaries of M. Duclos, secretary of the French Academy, fell little short of it in celebrity. We have only therefore to offer some remarks on the parts peculiar to the present edition, viz. the Introduction, (240 pages) by Mr. Petitot, and the notes subjoined, we presume by the same editor, to Duclos's Commentaries.

The introductory essays, according to Mr. Petitot's declaration, is written on the following position, that the improvement and decay of a language are inseparable from the improvement and decay of taste.

"The syntax," adds he, "may be the same, although the language is changed.....and it is under this point of view that I have considered the French language."

The author has not strictly adhered to this position, and besides, he abounds in useless digressions and desultory enquiries. We do not see any connection between the plan he lays down, and his researches on the origin of language, which fill 19 pages of his essay; and notwithstanding he has chosen to thrust himself into this unnecessary field of discussion, we do not see that he has immediately confuted, as he thinks, the respective systems of Rousseau, Condorcet, and Condillac, on the subject. It is unworthy of a philosopher to conclude, as he does, page 13, that "it is sufficient to deny their suppositions, naturally destitute of proofs, to destroy any consequence to which they give rise;" as in any philosophical enquiries concerning the primitive nature of man, and the earliest exertions of his mind, we have no other principles than some rational suppositions, grounded on the actual knowledge of his powers and affections. To cut short all questions of this kind, as Mr. Petitot does, p. 16, by affirming that "the gift of speech was coeval with the creation, and the immediate work of God, who willed that man should be thinking and sociable," can scarcely be tolerated in a system of divinity. Though, like him, we profess the deepest veneration for any revealed truth respecting the natural history of man: yet we do not think it improper that some enquiries should be instituted on the same subject, as it may be understood, independently of the doctrines of revelation. How unphilosophical and absurd the following conclusion is, the reader himself may decide, p. 18.—

"Nobody can possibly doubt but man is endowed with the organ of speech at his very birth. The want of this organ would lead us to believe that man issued imperfect from the hands of the Creator, and that he became perfect by his own exertions. This contradicts every rational opinion, and is confuted by the example of all living beings, which we always see avail themselves of every organ."

After drawing this conclusion, and after a paragraph on the primitive sounds of the Arabic language, which has, most evidently, no connection with the subject, the author makes, p. 19, the following abrupt and precipitate transition :—

" It is incumbent on the learned to examine how modern languages were formed, in the gradual decay of the Roman empire, when a swarm of barbarians successively occupied its provinces, when southern and northern nations were strangely intermixed, and when all these individuals, alien to one another, in education, manners, and propensities, mingled their uncouth idioms with the harmonious languages of Greece and Italy."

Mr. Petitot should have left to philosophers the task of enquiring into the origin of language, as he has delegated to the learned that of examining the rise and progress of modern idioms!

" These learned men," in the author's opinion, " must, above all, enquire how, in the midst of this disorder, a language could arise, which, from its perspicuity and elegance, and by its masterly productions, was spread throughout Europe." As to himself, he declares, that his intention is, (and here only we see the plan of his essay) " to delineate the origin and constitution of the French language, then its progress from the reign of Francis the First to the days of Paschal and Racine; and lastly, its decay in a period when every thing was in confusion, when an unintelligible neologism was adopted, and when the same errors and sophistry were introduced into literature as into politics."

From this plan, the reader may already anticipate that the essay will exhibit little more than common topics, and hackneyed doctrines concerning French literature and its connection with the southern languages, and the revival of science, after the dark ages. The following historical remarks are all that we can find worth copying on account of the information they convey.

" About the middle of the 14th century," says Mr. Petitot, page 81, " the French language was divided into two dialects, one of which was spoken in the north of France, on this side of the Loire, and the other in the south, on the opposite side of the same river. The former possessed all those barbarous terminations which the Franks had introduced into the Latin words, and was consequently liable to uncouth and disagreeable sounds. The latter was infinitely sweeter, especially after its mixture with the Italian, but had not, in return, that peculiar character which is requisite for the establishment or diffusion of a language. To its natural licences, adding all those which had been adopted from Tuscany, it was not able to attain either the grandeur suitable to serious performances, or that elegance and correctness which is respectively necessary to entertaining and didactic works. The northern idiom, owing to different causes, soon acquired its proper shape, and then became competent to express any sentiment or idea, to delineate any picture, and to assume any tone."..... " These observations," concludes he, " may be sufficient to confute the opinion of those who regret, it seems, that the *Languedocian* did not get the better of the *Picard*."

We have transcribed this paragraph merely as being an historical remark not universally known; for as to the justness of it we have some very great exceptions, and we regret that the limits of this article will not allow us to enter into detail respecting them.

As to the decay of the language, during the 18th century he likewise remarks, p. 222, that " Voltaire was sensible of the decay of taste, and of that confusion of style which foretold the degeneration of the idiom—In his discourse at the time of his reception in the French Academy, he explicitly declared, that whatever has a tendency to corrupt taste will ultimately corrupt language also. 'We very often see,' said Voltaire, 'an affectation to render serious and instructive works humorous by using the expressions of familiar conversation: very often also the *marotic* style is introduced into the most noble subjects. New terms are adopted without necessity, where even necessity would scarcely be an excuse.' It is evident that these passages alluded to Fontenelle, and his imitators."

" The eloquence of Rousseau," says he, p. 236, " breathed that species of quackery which he habitually employed: it was not free and natural as that of Bossuet; but was always remarkable for affectation, emphasis, and false enthusiasm.—The fashion of introducing *sensibility* every where seems to have commenced with Rousseau; nobody more than he ever abused the relish he himself had inspired for those vague reveries which afterwards became important when the pleasures of melancholy were exaggerated. A considerable part of the books of that time, whatever was their subject, bore that sentimental and melancholy character which the critics of the present day have already begun to consign to ridicule."

We must remark, that this statement is not entirely correct, as in the sentimental, or more properly, melancholy writings, our Young enjoyed the priority of more than 20 years over Rousseau; and Sterne may at least be accounted as a contemporary author in the same line.

Among the notes on Mr. Duclos's commentaries, we distinguish that on the first chapter of the second part, concerning the principles upon which rests the philosophy of language. The gentlemen of Port Royal had very properly classified words according to the *objects* and the *modes* of our thoughts. The illustrious grammarian Dumarsais, in retaining this original classification, modified it with regard to the several views of the understanding, and consequently thought that articles, prepositions, and adverbs, could not, like nouns, pronouns, and participles, be placed in the former class. Mr. Duclos is of the same opinion, and Mr. Petitot endeavours to confute him, chiefly for the reason, p. 437, " that the views of the understanding are evinced by the entire sentence, and that Dumarsais's distinction is improper, and only tending to multiply difficulties." Were the question to be decided on these principles, we should rather side with Dumarsais and Duclos. But it has been already brought to a superior light by the grammatical labours of Mr. Horne Tooke, to whom the several parts of speech are respectively indebted for their appropriate place in the history of language, and who has ultimately established that admirable simplicity of classification, of which a confused notion had previously been entertained by the gentlemen of Port Royal.

F. D.

2. *The Defence of Order, a Poem. By* Josiah Walker, *A. M.*

This little Poem, which is divided into three parts, possesses considerable merit both in its plan and execution. Its object is to shew the misfortunes that have followed the principles unhappily adopted in France, and to warn this country by the example. The first part exhibits the consequences which have attended the French revolution, and the danger which England happily escaped from some mistaken admirers of it here. The second part contains a warm eulogium on those statesmen and writers who resisted and confuted the errors of the Gallo-mania, and the third celebrates the names of those warriors who conquered or who fell in the contest. Mr. Walker's manner is spirited and his versification flowing and correct: Of this we select the following specimen, as it exhibits the triumph of a gallant regiment whose laurels have lately been attempted to be wrested from them:

"The tribe, alone of Europe's sons, who broke
The eagle's wing, and spurned the Roman yoke;
Who, from their hills, a bold defiance hurled
On the proud tyrant of a trembling world;
The sacred hills, bequeathed from age to age,
Unstained by conquest, pure from foreign rage.
Yes! they are here; the same unyielding train,
On Morven's mountain, and on Delta's plain.
There they defied the *Invincibles* of Rome,
And here to death their imitators doom.
For, though the Gaul, whom firm resisting force
Too quickly urges to his last resource,
Lets loose the band, for high atchievements saved,
Whose vaunted prowess Lombard vales enslaved,
Soon fade their laurels, closed their swift career,
When, rushing forth, the furious Celts appear,
And, crushed in carnage, send the braggart host,
To count their conquests on the Stygian coast."

We have one or two little defects to point out. The calling two ships of the line, *twin gallys* is certainly not accurate, and *watchmen* is not a correct military term for a centry stationed to watch the falling of a shell; neither can we approve the use of the word *Saviour*, for a deliverer, that appellation being appropriate to one sacred name.

We must further commend this work for the spirit of manly and temperate freedom which pervades every part of it, and is particularly marked in the apostrophe to Britain which concludes the Poem.

"And oh! through peace or war, may Freedom shed
Her saintly halo round thy sacred head,
With thee, when driven from every harsher clime,
Her dwelling fix, thy guardian power sublime!
As shines the soul, with unextinguished flame,
Bright, through the ruins of its crumbling frame,
And slowly creeps along the ebbing veins,
To the last spot where vital warmth remains:
Oh! thus may Freedom's lofty spirit tend
Thy lengthened path, and with thy being blend;
Assuage (for mortal thou) the dying throe,
Urge thy last pulse, and in thy ashes glow.
But far from Albion, far, dear isle, from thee
Be Gallic liberty's accursed tree,
Whose boughs, like fabled Upas' spread abroad
Destructive vapours, through the works of God;
O'er life and nature fling their venomed breath,
And circumfuse an atmosphere of death!"

Mr. Editor,

As you have given your readers one interesting passage from what I reckon a very interesting book, The travels of Pictet, in Great-Britain and Ireland, I send you another, which I hope you will think worthy of insertion. It contains his opinion respecting our plans of education. On all subjects, on which we are apt to be biassed by habits of association, the opinion of intelligent foreigners deserves attention, on none more than on the usages, and institutions of ordinary life, where these habits are naturally the most inveterate; and the importance of the business of education, and the early period at which our casual associations with regard to it are formed, give an additional and peculiar importance to such opinions on this subject.

"From all that I have been able to observe of the English education in general," says this respectable visitor, and ardent admirer of England, "and what I have heard with regard to it from many of the English themselves, I have reason to believe it not very good. The children are sent, as boarders, to great schools, or colleges, such as Harrow, Westminster, Eaton, &c. Great numbers of them are here placed together, very imperfectly superintended, or rather almost entirely neglected, restrained solely by the fear of the rod, a species of punishment sufficiently illiberal, and which, if it ever ought to be admitted, should at least be reserved for the most serious transgressions. The instruction is entirely classical; emulation is excited among the scholars in a very imperfect manner; and the effects of example here are far more pernicious than useful. Many of these inconveniencies attending the schools are found also in the Universities, and the distinction of ranks which is there introduced among the students, and even ostentatiously exhibited, by a dress peculiar to the sons of the nobility, is, in my opinion, an additional evil. The limited range of the instruction given is another. Oxford is almost exclusively adapted to form classical scholars: and Cambridge mathematicians. At Edinburgh only is found that variety, and choice of practical information, which is calculated to make a man fit to be useful in society, and desirous to become so. By this circumstance, and by the simple manners of the inhabitants of that city, which favour a more useful employment of time, we may, in my opinion, account for the superiority, sufficiently distinguishable, of Scotchmen above Englishmen, in the arts, and in the higher branches of political knowledge."

Mr. Editor,

I shall not take the trouble of searching for authorities in support of my assertion, that the Latins surpass the Greeks in epigrammatic composition; but shall rather call upon your Correspondent E. for his vouchers to the contrary; remarking in the meanwhile, that I doubt very much of his having the majority of critics on his side, when he rates Lord Chesterfield's opinion, in matters of wit (*we have here nothing to do with his morality,*) no higher than that of Shakspeare's dotard, Polonius. Pope, whom your Correspondent will perhaps allow not to have been deficient either in

taste or judgment, and who for epigrams or epitaphs will very well stand a comparison with Callimachus or Antipater; Pope thought otherwise, when he wrote the following extempore couplet:

'Accept a miracle, instead of wit,
'See two dull lines by Stanhope's pencil writ.'

As for the two epigrammatists just mentioned, whom E. has singled out as pre-eminent above the rest, I would ask him whether for one good, or even tolerable epigram ascribed to Antipater, we have not a score that are poor and worthless? And whether if Callimachus had written nothing but epigrams, he would have held that rank among the poets which he now does? The charge is just that Martial's compositions are too often sullied by obscene allusions and expressions; but are we therefore to deny that he possessed poetical talents or the powers of wit? Indecent words and ideas are at all times a heinous offence against sound sense and true taste; but if every poet who is occasionally guilty of this offence is to be condemned *in toto*, as a mere doggrel rhimer, I am afraid that Horace himself must no longer be suffered to occupy the heights of Helicon, but descend to its base! But if Martial (setting aside the reproach of indelicacy) is so poor a poet, how comes it that a selection of his epigrams should be received into our first rate grammar-schools? It is evident that the masters of Westminster, and your correspondent E. are of an opposite way of thinking, in regard to the merits of this classical author.

According to E's interpretation of the epigram which has given rise to this correspondence *ὁ* stands for *τούτου* (cujus rei) and *σῶμα* for *τεκμήριον*; but this interpretation appears extremely forced, and contrary to the simple construction, and plain and natural meaning of the words in the original.

I cannot conclude without remarking, that because the Greeks are unrivalled in all the sublimer species of poetic composition—in the epic, the dramatic, the odean;—we are not therefore to be dazzled into a belief that they likewise excel in all the inferior specimens of song, in which rank the epigram is placed.* The wreath which adorns their thickly-cover'd brows, wants not the addition of this smaller leaf. P.

The following beautiful little Poem appeared some time ago in the St. James's Chronicle. *We insert it in our* Journal, *in compliance with the request of several Correspondents.*

ON THE BATTLE OF HOHENLINDEN.

By Thomas Campbell, Author of the Pleasures of Hope.

1.

On Linden when the sun was low,
All bloodless lay th' untrodden snow,
And dark as winter was the flow
Of Iser rolling rapidly.

2.

But Linden shew'd another sight,
When the drum beat at dead of night,
Commanding fires of death to light
The darkness of her scenery.

3.

By torch and trumpet-sound array'd,
Each horseman drew his battle-blade,
And furious every charger neigh'd,
To join the dreadful revelry.

4.

Then shook the hills with thunder riven,
Then rush'd the steeds to battle driven,
And vollying, like the bolts of heaven,
Far flash'd the red artillery.

5.

And redder still those fires shall glow,
On Linden's hills of purpled snow;
And bloodier still shall be the flow
Of Iser rolling rapidly.

6.

'Tis morn, but scarce yon level sun
Can pierce the war-cloud rolling dun,
Where furious Frank and fiery Hun
Shout, mid' their sulphurous canopy

7.

The battle thickens—on, ye brave!
Who rush to glory and the grave;
Wave, Munich, all thy banners wave,
And charge with all thy chivalry.

8.

Oh! few shall part where many meet,
The snow shall be your winding sheet,
And ev'ry turf beneath your feet
Shall mark the soldiers' cemetry.

* It is, however, not easy to account for the general want of point in the Greek epigrams, (I do not apply this remark to their sepulchral epigrams, or epitaphs, where from the nature of the subject, one should seldom look for it) when we call to mind the exquisite wit and satire with which their sayings or apophthegms abound.

NOTICES.

The Royal and Antiquarian Societies have adjourned their meetings till November.—The Sunday-evening *Conversazione* at Sir Joseph Bankes's is also closed for the Season.

The museum at *Montpellier*, in the medical college of which a bust of Hippocrates was placed some time ago, held in the month of January a solemn sitting for the purpose of consecrating the statue of *Voltaire*, an original model in full length made by the celebrated *Houdon*, and on the 3d of February a report of that sitting was made by E. P. Martin Choisy at a meeting of the Society of the Sciences and Arts of that place. On that occasion *La Bastide* read a lyric poem on painting; *Vieilleville*, an account of particulars respecting Voltaire, not generally known; *Privat*, adjutant-general and inspector of reviews, an epistle, addressed to Voltaire; *Martin Choisy*, a memoir on the influence of the fine arts on the poet, and the influence of poetry on the artist; and *Vincent Daruby*, the plan of a collection of lyric poems, to be published under the title, *Les Napoleïdes*. The festive meeting was closed with a hymn to Voltaire, and a ball.

Mr. *Rodowsky*, a learned physician, and botanist, who

has for some years resided with Count Alexei Razumowsky, has published a botanical description of the plants growing on the Count's estates under the following title:—*Enumeratio plantarum quæ in horto Excellentissimi Comitis Alexii Razumowsky, &c. &c. in pago Mosquinoi Gorinka vigent, &c.* which contains upwards of 3000 articles.

The Literary Inquisition in Spain continues to be extremely severe. On the eighth of January, last year, an ordinance was published, enacting, that it shall not be lawful to sell any literary production, imported from abroad, in whatever language it may be written, and of whatever subject it may treat, before a copy thereof has been sent to the Council of Castile, and license of sale obtained. Since that time large bales of printed books are lying buried in the custom-house warehouses of the frontiers; and the proprietors of the books are, for the most part, neither able to obtain a license of sale, nor to get back their books.

MANNERS.

On the Manners of Traders.

IT is our object, in the present speculation, to offer some remarks on the present state of Manners in the commercial or trading world, convinced that these are so much changed of late years, as to afford ample materials for consideration, and perhaps some small fund for amusement. We have been induced to make this attempt, not only at the private request of various correspondents, but because it necessarily forms an essential part of that general review of the Manners of the present day, which was originally projected to fill up this department of our Journal.

Yet on taking up our pen to execute our intention, however imperfectly, when we came to consider what a very extensive class of our fellow-subjects are included under the title of the commercial world, we began to suspect, that, without some precaution and delicacy of discrimination, we might give offence at the very outset. If, for instance, we offered to discuss the manners of *commercial men*, we should naturally be supposed to mean none but opulent merchants —and if we used the term *tradesmen*, we might be supposed to interest ourselves in the affairs only of shopkeepers and inferior manufacturers. Dr. JOHNSON makes a distinction betwixt *tradesman* and *trader*, which we shall transcribe for the information of our readers. "A *tradesman*," says our learned lexicographer, "is a *shopkeeper*. A merchant is called a *trader*, but not a *tradesman*, and it seems distinguished in Shakspeare from a man that labours with his hands."

Every person who attends to the common language of the day, will allow the above distinctions to be founded upon public opinion. But, as it is necessary to be a little more explicit, we shall quote the most recent authority, both for the definition of *merchant*, and of *trade*, and, by consequence, *trader*, or *tradesman*.

A MERCHANT is a person who buys and sells commodities in the gross, or who traffics commercially by exporting and importing for his own account. The word was formerly of a different meaning in this country from what it is now; retail dealers were then called merchants, as they are in France and Holland still: but in this country, those who sell by retail, with a few exceptions, have lost that appellation. The transacting mercantile business does not constitute a merchant. Those who buy, sell, export and import for the account, and at the risk of others, are called *agents*, *factors* and *brokers*. Those who transact business, by keeping goods ready in their possession, are termed *warehousemen*, though they do not sell by retail; yet, in some cases, those who do deal in retail transactions, such as coal merchants, wine merchants, hop merchants, timber merchants, &c. &c. are honoured with that appellation.

Now, from the same intelligent author we learn, that TRADE is a word used in many cases to signify commerce, also traffic and manufacturing of goods; so that it is a very general and comprehensive term. Most kinds of industry, excepting agriculture, are comprehended under the general appellation of *trades*; and all sorts of dealing, by way of selling or exchanging, are called *trading*. If selling, bartering, or exchanging, constitute trading, all men who make articles for which they either receive money or other things in exchange must be men in trade, or traders; but as language is sometimes superior to all rule, and is what custom makes it, we do not call a *farmer* a *tradesman*, but we speak of the *corn-trade*. Artisans, as well as those who employ them, are called tradesmen; and men in the highest lines of commerce are called men in trade, but to call them *tradesmen* would be highly improper, according to the received usage of the word. Few words are more generally applied and universally used, and consequently there is scarcely any term so difficult to define in a complete and unexceptionable manner.*

If this difficulty occurs to a person so conversant in matters of trade as the author from whom we have borrowed these observations, *we* surely may be pardoned if we are interrupted by the same obstructions. But it is fortunate for us, that for all the purposes of what is to follow in this paper, we may use the term *trader*, as meaning every person connected in a greater or less degree with trade or commerce. We are aware that the vast extension of the British commerce has led to the organization of a new empire, if we may so term it, among us, in which there are as many ranks and distinctions, as in the *other* empire. But upon the whole, we trust we shall be sufficiently understood, when we say that the remarks now about to be offered relate to the commercial or trading world, in contradistinction to the nobility and gentry, or what is sometimes termed, the landed interest.

The manners of traders then, very short memory, and very superficial observation will show, are greatly changed of late years. And we would first remark, that much of this change is for the better. It was a prejudice of very long standing in this country, that education could not be requisite to a person who was to engage in trade. It was triumphantly asked, of what use were Greek and Latin behind the counter, or what reputation had the names of Homer or Virgil upon the Royal Exchange? Learning was therefore confined to scholars by profession, who were frequently nothing but scholars, and not always the most useful part of mankind, as they seldom brought their know-

* Montefiore's Commercial Dictionary, 4to, in Art. MERCHANT and TRADE.

l dge to bear upon any of the useful occupations of life. No body of men were at one time, therefore, more illiterate than men in trade; if they could write, and read what they wrote, and had some knowledge of figures, all other instruction was considered as "paper and packthread." But many, we can remember in our own days, had not even attained that small portion of education, and it is not much more than thirty or thirty-five years, since a wealthy and respectable citizen of London, dressed, as was the custom then with that description of traders, in a rich laced waistcoat, and gold-laced hat, begged of Lord Mansfield to be excused serving on a jury, because he could neither read nor write. Yet this man carried on a very extensive trade not only in this country, but with Ireland and Scotland, and upon one occasion, within the memory of some now living, clearly proved that he did not know in which of these kingdoms the cities of Dublin and Edinburgh lay. We mention this as *no uncommon* case forty or fifty years ago.

Connected with this ignorance was the usual accompaniment of ignorance, a narrow mind. Self cunning, and want of feeling, were common, and brought a general reproach on trade. Writers then frequently indulged themselves in invectives on "the narrow, unfeeling, or illiberal spirit of commerce," and we know from all the records of wit, comedies, novels, &c. that a tradesman was the constant butt of ridicule, and seldom brought on the stage but to be cheated and cuckolded. The distinction between gentleman and citizen, or as the latter was contemptuously abridged, *cit*, was then very wide. The two characters never mixed, nor wished to mix. The gentleman despised the cit, as a person who was created merely to sue for debts, and the cit considered the gentleman as an animal made to contract them. There was no assimilation in society between such opposite characters, and nothing was to be *envied* in the trader but his money. Apart from that, he was a being whom "nobody knew," and whom fashion disdained to admit within her brilliant circles. Nay, until Garrick's time, it was even customary to perform on the 9th of November (Lord Mayor's day) a foolish and indecent comedy, in direct contempt of the city, its magistrates, and inhabitants.

The case is now wholly altered; and perhaps there is not in the world a body of better informed, more liberal and intelligent men than the traders of this country, and particularly of the city of London. In their individual capacity we find every where the result of education, in their address, manners and conversation; and in their combined or corporate capacities, it will be difficult to select, from any class, men who conduct affairs of a public nature with more wisdom or liberality. Individuals among them may yet be narrow and selfish, but in all meetings or societies for general purposes, narrow and selfish sentiments are repelled with contempt, and become consequently quite impotent as to any influence they can have on the conduct of public affairs. It may in particular be remarked, how extremely rare the character of *miser* is now become, and when it does occur, with what general contempt and ignominy it is treated.

Of the liberality of the present mass of traders, high and low, so many decided proofs may be given, that we know not where to begin, nor if we were to expatiate freely, should perhaps know where to end. Two or three prominent circumstances may however be brought in evidence. One is so striking, that every reader has probably anticipated it. While it is notorious and undeniable that no nation abounds more in public charitable institutions of every description, and applicable to every species of distress, bodily or mental, it is equally certain that the trading part of the world have been the institutors, and are the chief, and with very few exceptions, we may add, the only supporters of these means of relief. They not only institute such with alacrity and zeal, but continue to support them with constancy and cheerfulness, often sacrificing their time, and more immediate business, to the management of affairs, for which they can have no recompence but in their own minds. It is impossible to be present at any of the anniversaries of these hospitals, dispensaries, or by whatever name they may be called, without being strongly and delightfully impressed with this fact—and without observing how gladly many obey the feelings of sympathy in exceeding their stipulated subscriptions, when a new call requires additional support, and how willingly they accept and execute trusts, often of an inconvenient kind, because they consider themselves as the guardians and protectors *for ever* of those whom they have *once* determined to relieve and to support. And upon this subject let us add, that the newest institutions are maintained with a liberality which justifies the assertion that the spirit of charity is increasing year by year, and that the space between the *knowledge* of any new species of distress, and the *relief* of it, is in this country, and in this city, very small indeed.

But it is not only in the case of these charitable institutions, that a growing spirit of liberality distinguishes and ennobles the character of trader. If it were, perhaps those who are narrow-minded might attempt to resolve it into ostentation, and other motives very wide of the right one. But such an improper and unjust mode of thinking will have little effect, when we appeal to another circumstance which marks the increasing liberality of the spirit of trade, in a manner that will not admit of being explained away, or attributed to any motives that are not highly honourable. We allude to the conduct of creditors towards debtors, in the case of bankruptcy; and when we have mentioned this, we are confident that the bare mention of it is sufficient to recal, in the memories of our readers, a thousand instances of kind and liberal treatment towards the unfortunate; and of lenity, which must proceed from principle, since here is no room for affectation, but often a most serious and substantial loss incurred, sufficient to try the temper of the stoutest philosopher. We are convinced that we run no risk of contradiction, when we assert that lenity to the unfortunate debtor is a strong feature in the character of traders. They only who are far remote from the knowledge of trade, can be ignorant of this. And it is certain that such instances would be far more frequent, if the distinction could be oftener established between the unfortunate and the fraudulent debtor.

It may be said, if all this be true, why are our prisons crowded with debtors? The question is a delicate one; we are aware that no language is so unpopular as that which seems to bear hard upon imprisoned debtors. We shall, therefore, suppose that there are *unfortunate* debtors in jails, but they have been sent there by individuals, and we never denied that individuals in trade, as well as in every other profession, may be stern and severe. But we assert that collective bodies, or meetings of creditors, exhibit no such conduct; there, almost invariably, the voice of inhumanity is drowned. Having, however, granted that there are *unfortunate* debtors in jail, and having thus accounted for it, we may be permitted to add, what it will not be easy to deny, that the greatef part are by no means of this description, a fact which has been repeatedly brought forward on the highest authority. But we are probably addressing those to whom much argument on this part of the subject is not necessary.

Not only with respect to the circumstances now detailed, are the manners and habits of the trading part of the community essentially altered within the last forty or fifty years. If we look at their general appearance, we find every thing indicative of improvement and even refinement. Their understandings being better cultivated, they are more fit companions for every superior class: and in their houses we see an elegance and taste displayed of which their ancestors had no idea. They readily assimilate with the higher orders, and from their wealth are enabled to vie with them in splendour of equipage, munificence of entertainment, and other circumstances which the manners of the age have rendered necessary in persons of a certain property. While some have even attained the rank of the peerage, others have by intermarriages connected themselves with noble families, and a very great proportion have procured seats in the house of commons, where their abilities have by no means disgraced that high station.

Their amusements, too, are the same with those of the upper classes, and they partake of them with a knowledge, skill and spirit, which render them no longer liable to that ridicule which is bestowed on awkward imitation, or fashionable affectation. In the conduct of their families, too, we observe a higher degree of polish, and genius, and taste frequently displayed in what are esteemed the politer accomplishments.

Having thus briefly sketched the changes which have taken place in the manners of traders, and resolved them into improvements of the most important kind, it may naturally be asked whether we have absolutely exhausted the subject, and whether some changes have not taken place which are not strictly improvements? To this we shall readily answer, that we have in fact but half discussed the subject. We have exhibited but one side of the picture, and that the most favourable. It would ill agree with the useful purposes of our Journal, if we were to suppress truth from any motive; but after having yielded so much to the excellent character of traders, we hope we shall be excused, if we take another view of the subject, and point out certain innovations and changes which are *not* to be ranked among improvements; but the consideration of these matters must necessarily form the subject of our next paper. In that we shall perhaps penetrate deeper into the interior of society than may to some be agreeable, but this must be our consolation, that the giving offence will be no equivocal proof of our having spoken truth.

POLITICS.

WE have already declared our opinion that a military force, of the nature of our militia, ought not to be resorted to, in such a state of society as that in which Great Britain is placed at the present moment; because it is more expensive to the government than any other; because it is most oppressive to the people; because, the burthen falling altogether unequally, it is highly unjust; because it is no safeguard to freedom; because it is not to be compared in value to an army of professional men, being not so fit for the day of battle, nor of a nature to be sent to meet the battle, at the place where it might be most advantageously fought. We certainly mean no disparagement to the militia at present existing, by these remarks. We know that these regiments are composed of men naturally as brave as ever faced an enemy. What we lament is that such men should be placed in a situation in which their noble spirit can comparatively be of little use to their country. It is not that we suppose the militia regiments will be afraid to face the French. Britons have not to wait for the insensibility of habit to make them stand before an enemy devoid of fear. We are certain that the regiments of militia will come into the field with a confidence not inferior to that of the most veteran troops, with an ardour probably superior; and that very ardour may be their ruin, because they want the experience which is necessary to guide it. That the regiments of militia, however, will render the most essential service in the day of action, if they are skilfully managed, we have not a doubt. But we are certain that a smaller number of men taken from the productive labour of the country, and mixed with the troops of the line, and placed under their experienced officers, would have rendered equal service. So confident are we however in the native intrepidity of Britons, that we are well assured a skilful commander could make important use of a body of them, though but called out the day before the battle. We have not a doubt that 10,000 men might be drawn from London at two days warning, of whom, though with pikes only in their hands, an immoveable line might be formed, which it would not be an easy matter for the hardiest troops in Europe to break. It would be necessary, however, that these men should be reserved for the push. It would be necessary that they should be protected by active and experienced battalions, to keep off the artillery and musquetry of the enemy, to receive the troops who might in any place pierce their line, and prevent them from flanking and cutting them off. And such a service would require great skill and activity in the officers.

We proceed to make some observations on the plan proposed for the additional, and extraordinary force, which at present is thought necessary for the defence

of the country. Fifty thousand men, to be called an army of reserve, not to serve out of Great Britain and Ireland, not to serve beyond five years, or six months after the termination of the war, are to be added to the regular and militia force already existing in this kingdom. The number is probably not more than is wanted. The mode of raising them we think deserves great reprehension.

They are to be levied by ballot. That is to say, the names are taken of all the men in a parish of a certain age, a certain number of these names are drawn out, as tickets in a lottery wheel, and the persons whose names are drawn are compelled to become soldiers, or to find substitutes. Our first objection to this mode is, that it is forcible, and not voluntary. And we know that wherever men can be brought to serve you voluntarily, it is unwise to make them do it forcibly; and that the means for the former ought always to be completely exhausted, before recourse is had to those for the latter. But we know at the same time that the forcible means always present themselves first to vulgar, and shallow, and inexperienced minds.

Our next objection to the mode of raising men to serve the state by ballot, is a very strong one, that it is unjust and cruel; as it transfers the burthen of serving the state from the community at large, and imposes it upon individuals,—imposes it upon individuals with a weight too grievous to be borne. It may be said, that among all those subject to the ballot the burden is equally shared. But this is a fallacy. The risk beforehand, indeed, is equally shared. But afterwards the burthen is altogether removed from all those who escape, and is laid with intolerable oppression upon the unfortunate individuals who are caught. They are made to serve the state at a most cruel expence. The greater number of their fellow-subjects they see altogether freed from this expence. Have they not just reason to be offended at this unequal mode of dealing? To shew the injustice and absurdity of this plan of providing for the exigencies of the state, let us suppose that the taxes of this country were to be paid by ballot. Here too no doubt we might urge, as every individual should be made subject to the ballot, that the burden would be equally shared, by the whole community. But we believe this would be no great consolation to the poor individuals, suppose a third, or a fourth of the people, who should be compelled to pay the whole, while the rest of their fellow-subjects passed altogether free. We suspect they would not think this a very just and fair mode of raising the taxes, notwithstanding the privilege of the ballot; because why impose upon individuals the necessity, even by ballot, of doing that which ought to be done by the community at large.

Besides this oppressive inequality established between those seized by the ballot and those who escape, we say there is a horrid and monstrous inequality even with regard to those who are seized. One man is carried off from an employment by which he earns two shillings a day, another is carried off from an employment by which he earns three times two. Do these men suffer equally by being compelled to sacrifice four years of their lives to the service of the state? It is mockery and insult to pretend it. Others are affected by the ballot, whose time is worth many times two shillings a day. What is to be done with them? Are they to be dragged from a great business, the success of which may be altogether dependent upon their exertions, and the well-being of several respectable families altogether dependent upon that success? Will you make a common soldier for four years, at a shilling a day, of a man the value of whose time at home, to himself, and to his country, may have been more than twenty shillings a day? What gross absurdity! what insufferable tyranny!

But it is replied that this enormity, which would not be submitted to, is prevented by admitting substitutes. This is merely correcting one piece of injustice by another. When substitutes are admitted, the matter comes, in the long run, to the burthen of such a sum of money as is necessary to find one. This is, to all intents and purposes a forced contribution imposed upon the subjects for recruiting the army; and levied with peculiar injustice and oppression, because it is laid upon a small number of individuals. If money be wanted to recruit the army, why not take it out of the Exchequer, and levy a fair and equal tax upon the subjects to replace it? Why call upon ten, twenty, or thirty thousand individuals, for the money which the state may want? Why not have recourse to the body of the citizens at large? Besides, what infamous injustice to extort the same extraordinary sum of money from every one of ten or twenty thousand individuals, whose circumstances may be as different as 50l. a year, and 50,000l. a year. The cases are innumerable in this country of individuals to whom it might be the most tyrannical and cruel usage to make them serve four years as common soldiers, whom at the same time it might grievously oppress to be obliged to advance 20l. or 30l. for a substitute. There are people of delicate health, whom the hardships of one campaign, if they did not totally destroy them, would at least unfit either for enjoying life, or for being useful in it for ever after. There are young men preparing themselves for stations in important business, to whom their time is infinitely precious, though its present pecuniary reward may scarcely afford them the most frugal subsistence; whose honourable and well founded hopes would be for ever blasted by four years avocation as common soldiers. There are young men of a description to whom their country owes much, who in the bosom of very scanty circumstances, are cultivating with care and anxious diligence their minds, and preparing themselves to discharge the most important functions to their country, in the distribution of justice, even in the great deliberative council of the nation, or by the profound and enlightened labours of the closet. What cruelty and injustice to exact from those men the same sum of money as from the man of fortune; or in default to lay upon them the penalty of serving four years in your army as common soldiers?

Another inequality which is professed, and avowed, but highly indecent, is the exemption of the whole rank of noblemen, the clergy, the members of the Universities, and lawyers, from this extraordinary burthen for the service of the state. If every man chosen by the ballot is obliged to become a common

soldier, there are many other individuals of the community, whom it would be equally indecent, equally cruel, and equally injurious to other important business of the country, to condemn to four years in the ranks, as it would be to condemn any of these exempted orders, however highly we may think of them, and no one thinks more highly than we do. If, on the other hand, the burthen is at last brought, by the admission of substitutes, to a pecuniary burthen, what possible right can these orders claim to a lighter share than their poorer fellow subjects? Is it not disgusting to think that it should have once been thought of? We are persuaded that one order of them will reject the scandalous boon. We are persuaded that the peers, who are not more deficient in public spirit and generosity than the rest of their fellow-subjects, will themselves claim the honour of making this amendment, and will refuse to pass the bill, till it include themselves, at least, no less than any other part of the community. This is an improvement worthy of them to make; this will throw lustre on their house, and on their character; and they ought to account it fortunate that the want of wisdom or the want of virtue in the other persons who have had to do with the bill, has left them so honourable an occasion to demonstrate their sense of justice to their fellow-subjects, and their zeal for the service of their country.

We have said, we trust, enough to convince every intelligent man that the proposed mode of defence is so bad as to be justified by nothing but the last direful necessity. The salvation of a country and constitution, from which we derive so many blessings, outweighs every consideration, and were this the only plan of which the urgency of the case admitted, he must be a wretch indeed who would scrupulously calculate the proportion which had fallen to his share, and not rather exult that he had been called to stand in a conspicuous station on so great and animating an occasion. Necessity, indeed, is the plea urged for the measure. But does this necessity really exist? We deny that it does.

It is said that the exigency of the case requires a speedy augmentation of the national force; and that voluntary recruiting for the regulars would not have been sufficiently expeditious. Has a single experiment been made from which there is a shadow of right to draw this conclusion? Is any comparison to be drawn between the slovenly and languid process of ordinary recruiting, and the spirit and ardour which might have been communicated to it by a change of system? Let measures not half so strong as the conscription by ballot have been adopted to animate the recruiting system, and, our lives for it, 50,000 men might have been raised, and one half of them tolerably drilled, under the serjeants and officers of the old armies, before this new and odious levy can be embodied. We are not going too far when we say, that nearly one half of this new force will be composed of substitutes. All this proportion accordingly is got by recruiting, and might by the same inducements, have been obtained for the regular service. Why not have tried the effect of high bounties in an emergency of this kind? To have paid 200l. for every man would not have been so oppressive to the community, as to pay 20l. is to the individuals on whom the misfortune now falls.

A very little thought, we are persuaded, would have suggested a plan, whose success would be infallible. The giving of enormous bounties into the hands of the common people frequently does the very reverse of good. They spend it extravagantly, and often abuse themselves with it. The more sober minded of them are aware of this; and such offers do not greatly tempt them, because they see that after a few months those who have received them are in general more miserable than they were before. There is one mode however of giving a bounty which would become an irresistible inducement, and would prevent all the abominable effects of putting too much money at once into the hands of your recruits. Establish an annuity for life upon every man who voluntarily presents himself to serve you in any part of the world during five years. Let that annuity be no more than the out-pension of Chelsea-hospital, and we will submit to any penalty if more candidates will not present themselves in a fortnight, than you will be able to receive. The idea of a provision made to render the years of their future life easy and comfortable, after a period of service to the end of which the imagination could easily extend itself, would act, we know enough of human nature to speak it with confidence, would act like a charm upon the minds of the people. Suppose you were to make the pension even £12 a year, the expence is no greater than the exigency of the case requires, and its effect would exceed your wish. What a powerful motive too, by the same operation, would you create to make your men the best of soldiers! Where, besides, in the world could they expect to find £12 a year laid up in store for them to render their after life comfortable? With what irresistible ardour would they fight in defence of a country which contained such advantages reserved for them, and which the prevalence of the enemy would completely destroy. The lion attacks his enemy with redoubled fury, when he would ravage from him his prey. But here would be all the native intrepidity and heroism of Britons, animated by whatever could rationally stimulate the future hopes of men. A moral situation of this kind would render even the rawest troops an over-match for the best disciplined and most experienced.

How superior the advantage of having the old regiments immediately filled up with these men, of having them placed under the experienced officers of these regiments, and benefited by the immediate experience and example of the disciplined companies which already belong to them! The circumstance, indeed, of providing officers for the new levy, if they must be embodied separately, is a matter of serious importance, and alarming augury. It is the most skilful and experienced officers alone, who can preserve undisciplined troops, from ruining themselves in a day of battle. Experienced men may be more entrusted to themselves. Now we pronounce with certainty that it is impossible to find officers, good for any thing, to take the command of these men, if they are to be formed into new regiments. That a few may be found is nothing to the purpose. What a

wretched mode of proceeding then is it, while your old regiments are reduced to a handful, to leave your disciplined officers without men, and to embody troops to whom you cannot give officers? Is this the scheme you have laid down to chastise Bonaparte?

Let us calculate the expence of the plan we have proposed, to raise 50,000 recruits for the service of the line. At 12l. a year per man, it is 600,000 a year to the nation. Fifteen years purchase for those annuities is too liberal an allowance, but let us take it at that amount. The whole expence of the levy, upon this largest calculation, would be exactly nine millions. Does any man pretend to say, that nine millions would be too large a sum to be paid at present to procure 50,000 men for the regular service of the state? Does any man pretend to say that a vote of credit for nine millions would be half so violent a measure, as to pass a bill to drag 50,000 men out of the country to your armies by force? The interest on this sum, according to the terms of the last loan, is 460,125l. per annum. Is it possible for any man to say that the payment of such a tax by the whole community would be at all to be compared in oppression with the forcible and violent levy which is now proposed to be made?

When we consider at the same time that the men raised by the bounty would be ready to go wherever their service would be wanted; would be much sooner in a state of high discipline; and would be much more zealous and enterprizing soldiers, who can hesitate a moment in his choice of the two modes of defence?

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2. *The Income Tax.*

It is from a desire to facilitate the business of the country in its present urgent circumstances, that we are eager to point out any defect which we think we perceive in the system proposed for conducting it. In safe and tranquil times the state can bear some mistakes in the plans of its leaders; and their errors may without danger be left to the rectifying hand of time. But occasions which require the concentrated efforts of the nation, which cannot admit of any faculty being left unemployed, still less of being wasted to a useless end, demand of every man not to conceal, but to proclaim loudly his opinion of any amendment which it is possible to make in the schemes proposed for the safety of his country, and in that of every thing which can be interesting to him as a human being. This is the patriotism which it belongs to the situation of many persons to exhibit. This is the function by which they can chiefly add to the powers of the nation. And the accession which it is possible may at some times be made by this means to that strength is beyond all calculation. Every wise man must detest that practice, which was very prevalent during the last war with France, and seems to be very fairly begun in this, of charging every man with a design to obstruct the business of his country, and to betray its interests, who presumes to find any defect in the measures of Administration. At a time, say the ministers, when the powers of all ought to be united in one direction, to find fault is only to dishearten, and inspire dissatisfaction. Is it indeed the best means of inspiring confidence, or spirit, to proceed, unchallenged, on a blundering system, which gives not half the energy to the powers of the country which they are capable of receiving; or by rectifying that system to shew the people that their interests are carefully attended to, that the resources of the country are applied in the best manner to the best objects? If inequality is admitted into the mode of drawing forth these resources; and if either waste or ignorance has place in their application, your system disheartens by its own nature, and the disheartening is then most complete when no voice is raised in opposition.

One of the first principles of taxation is, that no harassing and vexatious circumstances should be added as a double tribute to the money which the tax takes out of the pocket of the subjects. The severity of the oppression which an inquisition into every man's private circumstances, according to the principles of the income tax, implies, has been sufficiently exposed, and there is hardly a man in the nation by whom it is not reprobated. Another objection is the excessive evasion to which it is subject, and which no inquisition, even the most tyrannical, is capable of preventing. By this means the honest part of the community, and those whose income is visible, are loaded with a galling impost, while those who are dishonest, or whose income is more concealed, escape altogether. This is an abuse which no wise government will encourage; and a tax, subject to such an abuse, ought never to be imposed, till it be fairly admitted that all the better species of taxes are exhausted, and that between bad and worse is the only choice which remains. We are unwilling to allow that such is yet the case with this country.

But the chief blunder of the income tax is still more direct and gross; and for that reason the proposal of it is still more inexcusable. It is not merely unjust by its being so liable to evasion; it is unjust in its very principle. Income is not the criterion of a man's ability to pay taxes. A man's income is not proportional to his riches. And to tax men according to their income is one of the most unequal, and by necessary consequence one of the most unjust things that ever was attempted in any country. One man derives £500 a year from his industry; another derives £500 a year from a landed estate. Are these men equally rich? The man who has the estate can enjoy his £500 a year during his life, and at his death it can be sold for £20,000. The £500 a year derived from the industry of the other man falls the moment when he falls; he is therefore less rich by £20,000 than the other. What cruelty then to tax him in the same manner! What just, what wise government will ever urge such a proceeding? The man who possesses the estate, if he has a family, may live up to his income, and at his death leave ample provision for his family; the man whose income depends upon his industry, ought every year to lay up a part of that income for the benefit of his children. How intolerable, if government shall come, and tax his income equally high with that of the man who has occasion to lay up nothing! With whatever care he may lay up, he must still leave a provision for his family greatly inferior to that of the man with the

estate. Were he to lay up his *whole* income as long as he lives, still he must leave much less than the man with the estate. Can any injustice be more glaring, than to tax the income of these men equally?

Let us next put the case in the state of figures. The income from a landed estate, according to the manner in which land has been sold for a good many years, is worth perhaps 40 years purchase. £500 a year therefore from this source, as we have already stated, is worth £20,000. An income to cease with the life of a man in the flower of life, is reckoned at 15 years purchase. But full as many in the nation, who are affected by the income tax, are men above the middle age, as men at it. A considerable proportion are men far advanced in life. A very considerable reduction then must be made, with regard to the whole mass of people, of the number of years allowed for the purchase of the life of a man in the meridian of his days. We should think that one third at least ought to be allowed. Annuities then on the lives of all the men subject to the income tax would be worth only ten years purchase. But a rent from land is worth 40 years purchase; the man who holds it, then is four times richer than the average is of those who have annuities of the same amount. The share of the burthens of the state accordingly which is laid upon him ought to be *four* times as great. According to the principle of the income tax, a strange principle! it is no greater at all.

But a further reduction still ought to be made in favour of those whose income arises from their industry. Industry is subject to many casualties to which an annuity for life is not. During sickness a man's industry is suspended. Sickness may even unfit a young man from exercising his industry to the last moment of a long life. Industry is subject to the imbecilities of mind, as well as of body. The changes which go on without intermission in human affairs often diminish the productive powers of industry. And old age unavoidably brings along with it a decay of the power of exercising industry. On all these accounts, an income dependent upon the industry of an individual is worth less than an annuity dependent upon his life. If the one be worth ten years purchase, the other is not worth more than 7, or 6. But if the man whose income is not worth more than 6 years purchase is made to pay a tax out of it equal to that of the man whose income is worth 40 years purchase, who but must detest such a system?

So corrupt to the very core, is this species of taxation that were all incomes of one species; were they all even derived from landed estates, still the tax would be unequal and unjust. Five pounds taken from the income of a man, who has only £100 a year, makes a greater inroad upon his happiness, upon his means of enjoyment, than £50 taken from the man who has a thousand a year; and the same disproportion holds between the man who gives £50 from £1000, and £500 from £10,000 a year. In regard to figures the proportion is no doubt the same, but in regard to the providing of food, clothing, shelter, and all the pleasures which can be derived from the refinements of which they are susceptible, the case is very different. That a scale should be formed, to hold pace with the elevation of income, not to reduce ranks to an equality, but to prevent the creating of a new and a cruel inequality, has been often proved, and cannot be disputed.

NOTICES.

Dr. W. M. Keuchenius, late member of the administration of the department of Delft, has lately published at Amsterdam, an interesting account of the Income and Expenditure of the Batavian Republic, the results whereof he sums up in the following National Balance, which we extract from his work.

"*Income arising from the following Articles.*

1. "The interest on loans, negotiated by the Batavian Republic, which is yearly paid to its inhabitants, amounted for the year 1802, to f. 29,460,492—15 st. inclusively of the last loan, negociated by a lottery, it may be estimated at	f. 30,000,000
2. "The interest on foreign loans, negotiated by England, France, Russia, Sweden, Denmark, Austria, Spain, Prussia, and America, in whose loans and public funds the inhabitants of the Batavian Republic, are concerned to the amount of about eight hundred millions of guilders, computed upon an average at 5 per cent. per annum, throws into the circulation of this country, the sum	f. 40,000,000
3. "Our agriculture produces annually in its present condition, including the proceeds of cattle and other branches of husbandry, upon an average	f. 83,000,000
4. "The proceeds of our foreign trade and navigation may, from their great extent, in times of peace fairly be estimated, including freight, insurance, exchange and commission, at.....	f. 30,000,000
5. "The produce of our East-India Settlements and colonies in the West Indies, yields an annual profit of	f. 20,000,000
6. "The profit, arising from our manufactories, handicrafts and trades, is not of great moment, and only deserves to be noticed in this national balance as far as the hands employed therein work for foreigners, and by so doing bring money into the country. For the home sale of their productions does not increase the pecuniary wealth of the country, since the profit goes in this instance from hand to hand, without enriching a country, or enlarging the circulating capital; and as our manufactories, handicrafts and trades (with the exception of a few of the latter) work rather for home consumption, than foreign commerce, their share in our active trade cannot in this national balance be rated higher than.....	f. 3,000,000
7. "The Greenland and Davis' Straits fishery; the herring-fishery; that of Iceland and Doggers-bank; that off our coasts and in the Zuider-Zee; the fisheries in our inland rivers, canals, lakes, &c. yield in the whole a yearly profit of about	f. 15,000,000
	f. 221,000,000

Expenditure under the head of Taxes, as well as for home and foreign Commodities, used for Food, Cloathing, Habitation, &c.

1. "The taxes and other public contributions, do not amount to less than one-fourth of the general income, and at this rate they may be borne by the inhabitants without any just reason for complaint; they are applied, 1. To the payment of the interest of 80 millions of guilders (See Income, art. 1.) 2. To the maintenance of the necessary land and sea-forces; 3. To keeping the sea—and other dykes in repair; 4. To meet the charges of all political, financial, and other administrations .... f. 55,000,000
2. "Husbandry-charges on the produce of agriculture, woods, cattle, &c. used for home consumption..... f. 73,000,000
3. "Amount of the fish consumed by the inhabitants, and to be deducted from the produce of our fisheries..... f. 14,000,000
4. "Amount of our East and West India commodities, used for home consumption f. 8,000,000
5. "Amount of foreign commodities, required for our manufactories and handicrafts, and also for our food, cloathing, and other articles, necessary for our own consumption, viz.
   1. "Seven thousand lasts of grain imported from the Baltic and other parts.... f. 10,000,000
   2. "Salt for our own consumption ..... f. 3,500,000
   3. "Wine, brandy and vinegar for ditto ..... f. 8,000,000
   4. "Foreign tobacco, and snuff, for ditto ..... f. 5,000,000
   5. "English, French, and German manufactures and other goods, which we stand in need of for cloathing and other purposes ... f. 20,000,000
   6. "Northern productions, timber, hemp, metals, and other goods..... f. 8,000,000
   7. "Spanish and Portuguese commodities, and articles imported from the Mediterranean, the coast of Barbary, and the Levant, such as wool, silk, fruit, cotton, drugs, &c. for home consumption..... f. 300,000
   8. "Other not yet mentioned goods from Germany, Brabant, North America, and other parts ..... f. 4,000,000
   9. "Fuel for the use of our manufactories, and other purposes, from England and Brabant ..... f. 2,500,000

   f. 71,000,000

f. 231,000,000

By order of Alexander I. three officers of the engineers are to proceed to *Gravinia*, to make the necessary researches for obtaining a complete and correct knowledge of that new acquired country. New coins of 2 abases, (20 kopeeks,) 1 abase, (10 kopeeks,) and ½ abase (5 kopeeks,) are also preparing at the Imperial mint at Petersburgh.

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The Hundred Physiognomical Rules of Mr. Lavater, lately published in Germany, and now first translated, and annexed to this edition, form of themselves a work truly curious, and highly valuable to all who would wish to study Physiognomy as a science. They were not intended for publication by the author during his life-time, and only entrusted to a few select friends, under the strictest inhibition from making them public. They appear to have been considered by Mr. Lavater as containing the most important and profound secrets of his art. Their authenticity is unquestionable, both from the testimony of the editor of the posthumous works of Lavater, Mr. George Gessner, his son-in-law, and the internal marks they bear of the style and spirit of his writings.

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CHARLES HUTTON, LL.D. F.R.S.
GEORGE SHAW, M.D. F.R.S. and F.L.S.
and RICHARD PEARSON, M.D. F.S.A.

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*** A Prospectus, and the first sheet as a specimen, may be seen at the principal Booksellers of the United Kingdom.—Gentlemen who intend to become Subscribers (particularly for the fine Paper, the Number of which will be very limited) are requested to signify the same as early as possible to their respective Booksellers or to the Publishers.

END OF VOLUME FIRST.

TO OUR READERS.

We have now completed the First Volume of the LITERARY JOURNAL, *on a plan which we conceive to have been unattempted before. It was our intention to lead our countrymen to a taste for more solid and useful information, than is in general obtained by the readers of periodical publications. We designed to form a plan so comprehensive, as to concentrate the objects of all periodical publications, and afford the knowledge most generally useful and interesting, which could be communicated by that mode of instruction. And being strongly persuaded of the importance of accurate classification, we endeavoured, by a careful arrangement, to give the work such a systematic form as had not before been attempted in similar publications in this country. From the experience of six months, and the approbation of the best judges, we have ample reason to think our plan a good one. We have, too, additional reason, besides our own success, to conclude that the plan has been approved of by the public, since it has actually been stolen by another set of persons.*

From this experience, however, and the communications on the subject which we have received, we are induced to think that some alterations, which we are not unwilling to admit, will render the work still more agreeable to our subscribers. These changes respect chiefly the departments of PHYSICS *and* LITERATURE.

PHYSICS, *being addressed in a great measure to scientific people, to people acquainted with the technical phraseology of the sciences connected with the laws of the material world, have been found uninteresting or unintelligible to a great body of readers: while the men of science, particularly interested in such information, were disappointed to find so small a portion of the paper devoted to that subject, for which principally* they *were desirous of receiving it. As we have been thus able to satisfy no class of readers with regard to this part of our plan, we propose to make the following alteration; to cut off Physics as a separate head; to content ourselves with reviewing the books, and reporting accurately the leading facts, the discoveries, and other important occurrences belonging to this branch of Literature; and to place it as a subordinate article under the general head* LITERATURE.

By this alteration an important improvement will be admitted into the department of LITERATURE. *As a much larger share of the paper will be reserved for this subject, we shall be able to review many more publications than heretofore. And it is intended, both by the expedition with which every publication which appears shall be taken up, and the pains which shall be used to review it well, to leave little to be desired from any other publication in this respect. An Appendix is to be added to this part, which will be found highly useful and convenient, a* catalogue raisonnée *of all the publications which appear in Great Britain in the space which intervenes between the dates of our Numbers: and no effort shall be spared to render it perfect.*

We have been gratified by the general and warm approbation which the conduct of our article MANNERS *has obtained. We intend however, by the communications of a greater number of Correspondents, to make it somewhat more varied, both in the nature of the topics, and the air of the composition.*

Resolved from the beginning to sacrifice our convictions neither to the interests of any party, nor to the prejudices and passions of our readers, our sole object, in the article POLITICS, *has been to communicate just ideas concerning the present state of society, the relative position of the European powers, and the general laws of Policy, and of Right, on which depends the happiness of our own country, and of all other countries. Nor have we been deceived, if we may judge from the approbation which our labours have met with, in the interest which we conceived that such speculations ought to excite. This part of the work, therefore, will be continued on nearly the same plan as hitherto. It is only proposed to make the addition of a careful and complete summary of all the political events and occurrences which take place between the periods of publication, with a view to make this department a register of the facts in the political world, as well as of reflections and reasonings upon those facts.*

The next alteration which we have to propose is one to which we are reluctantly compelled. On account of our paper being stamped, and circulated like a Newspaper, we have found ourselves liable to be charged with the duty of advertisements for the Notices which have been given with regard to new publications, and similar subjects. As these Notices are voluntary on our part, and not paid for like the advertisements in a Newspaper, this is an expence which neither this nor any other publication could bear. And, on the other hand, if we should exclude these Notices, we exclude one principal article, for which a great body of readers desire to receive a Literary Journal. *Reduced to this dilemma, we have resolved at last, on mature consideration, to suppress the stamping altogether. This exempts us from the charge with regard to advertisements. Our readers will not then receive the publication by post, or so regularly; but, on the other hand, they will receive it cheaper. We have judged that on this plan it will be best to publish the quantity of two Numbers, twice in the month, that is to say, on the 1st and 16th; and to reduce the price to 1s. 6d. instead of 2s. as at present.*

Persons residing in or near the metropolis may, as heretofore, receive this Publication of their Newsmen; and those to whom this mode is inconvenient may receive it by the two-penny post—free of expence, on paying at the Office for One Quarter, or Six Numbers in advance.

Those who reside in the Country can in future obtain it only through the medium of the Booksellers and Country Newsmen, to whom our Readers are requested to give immediate orders, that the first Number of the second Volume, which will be published on the 16th of July, may be duly received.

*** *The Title and Index of the First Volume will accompany the Number to be published on the 16th of July.*